

Education Transforms — Papers and Reflections



The Peter Underwood Centre for Educational Attainment
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The Peter Underwood Centre for Educational Attainment

Education
perhaps more
than anything
is the passport
to a better life.



Peter Underwood
Former Governor of Tasmania

For an individual, education means increased prosperity, more opportunities to travel, and a longer life. For society, it means improved economic outcomes, better social environments, and a more thoughtful and aspiring community. Here in Tasmania, we know that we have some opportunities to improve educational outcomes.

We have opportunities to improve education attainment.

The Tasmanian challenge is a shared responsibility for education that affects all of us. It speaks to the need for common purpose. We must have the courage to put the student firmly at the centre of our thinking. We must have the wisdom both to learn from our experiences and our shared history, and to draw on the knowledge and ideas of beyond our shores.

It was in this spirit that the late Governor, the Honourable Peter Underwood, started a conversation with the University about what could be done to assist Tasmania and Tasmanians. We discussed the need to bring people together to find long-term solutions, the need for partnership across the educational and political spectrum, and the need for neutral space where ideas could be explored free from short term pressures. In 2013 he wrote to me:

"We spoke about the community having serious conversation about how to improve its functional literacy. Such a conversation needs to be informed by relevant factual opinion before it starts and it needs to avoid the blame game. Maybe such a conversation should at least start under Chatham House Rules. I thought..." This is Peter, *"...that maybe that conversation should begin at Government House."*

Peter's thinking was fundamental to the creation of The Peter Underwood Centre for Educational Attainment as a partnership between the University of Tasmania and the State Government, strongly supported by University Council and Government House. His thinking informed the Centre's first international symposium, and is reflected throughout the e-collection that has resulted from it.



Peter Rathjen
Vice-Chancellor

The Peter Underwood Centre for Educational Attainment

Launched in
February 2015,
The Peter Underwood
Centre for Educational
Attainment is a joint
initiative between the
University of Tasmania
and the Tasmanian
State Government.

The Centre's name honours the commitment to education and social progress made by the late Governor of Tasmania, Peter Underwood AC. Fittingly, our Patron is Mrs Frances Underwood, herself a committed educator.

Our Advisory Committee is chaired by Her Excellency Professor the Honourable Kate Warner AM, Governor of Tasmania, for which we are most grateful.

The Underwood Centre's aim is to be a 'centre of excellence' providing independent and non-partisan expertise to benefit Tasmanians and help them to flourish; its key focus is upon raising aspirations for educational attainment from birth to grade twelve in particular. There are many exciting opportunities to support Tasmanians' successes and choices in work, study, and life. Such opportunities, well-met, will enable us all to ensure Tasmanians' sustained achievements in learning, educational attainment, and cultural transformation. Strong foundations for individuals, families, communities, and the Tasmanian economy should result. Over time, our success will be measured by the ways in which our communities flourish, and by reference to a range of local, national, and international indicators and a robust evidence base.

Thus the Underwood Centre is founded on a vision to lead a process of positive and sustained transformation in Tasmanian education to benefit the whole community. The Centre epitomises the University's enduring commitments to Tasmanians now and in the future, exemplified by our capacity to draw upon a wide and collegial base of expertise in research, workforce development and planning, and community aspiration and outreach. This transformational vision is made material by a significant partnership with the Tasmanian State Government.



Elaine Stratford
Interim Director

Education Transforms — Papers and Reflections

This edited e-collection brings together individual and collective insights shared by international, national, and Tasmanian scholars, policy-makers, and advocates for educational attainment.

Together we are committed to demonstrating and nurturing the transformational power of learning over the life-course—and most especially for children and young people.

More than a conference proceedings, this e-collection is framed by prefatory comments on the critical importance of educational attainment and aspiration by the Governor of Tasmania, the Tasmanian Minister for Education and Training, and the Patron of the Peter Underwood Centre for Educational Attainment. Its purpose is introduced by the University of Tasmania's Deputy Vice-Chancellor (Students and Education) and Pro Vice-Chancellor (Students). The balance of the work comprises papers originally presented at the inaugural Education Transforms Symposium held in Hobart, Tasmania, over 14–16 July 2015. The work also captures reflections by several session chairs, panellists, and participants—all of whom share their views about how the symposium transformed their own thinking. These varied contributions are augmented by short commentaries from the coordinators of Children's University Tasmania and Bigger Things, two of the Centre's key aspiration programs. A final section by the Centre's Interim Director both closes the work and opens up a space for further and ongoing conversations about educational attainment and lifelong aspirations to learn.

Elaine Stratford is the Interim Director of the Peter Underwood Centre for Educational Attainment at the University of Tasmania.

Sue Kilpatrick is Pro Vice-Chancellor (Students) at the University of Tasmania.



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Joan Abbott-Chapman is Professor Emerita, Faculty of Education, University of Tasmania, and Fellow of the Australia College of Educators. Her expertise includes analysis of factors encouraging educational engagement among disadvantaged youth.

Megan Alessandrini is Senior Lecturer and Director, Gender Policy and Strategy Group, University of Tasmania, and has expertise in political activism, public and social policy, and political theory.

Jeanne Allen is Associate Professor of Education (Academic Director, Professional Experience) in the Faculty of Arts and Education at Deakin University in Melbourne.

Tom Bentley is a writer and policy advisor, and served as Deputy Chief of Staff to Julia Gillard when she was Prime Minister of Australia. His international policy experience includes being an advisor to the Bill and Melinda Gates Foundation education program.

Kim Beswick is Professor in Mathematics Education at the University of Tasmania. In 2014, Kim received the Research Award of the Mathematics Education Research Group of Australasia and was appointed to the Australian Research Council College of Experts.

Peter Brett is Lecturer in Humanities and Social Sciences Education at the University of Tasmania. He serves on the Steering Committee of the Social and Citizenship Education Association of Australia and is co-editor of its journal, *The Social Educator*.

Deborah Brewer is a doctoral candidate in the Faculty of Education at the University of Tasmania, whose dissertation is a critical social ecology case study investigating education participation and adolescent educational identity following Year 10.

Rosemary Callingham is an Associate Professor at the University of Tasmania with expertise in mathematics education, including assessment, multi-layered teaching tasks, and strands of the curriculum, notably statistics and probability.

Christine Cawsey AM is the Principal at Rooty Hill High School, the immediate past president of the NSW Secondary Principals' Council (NSWSPC), and a former member of the executive of the Australian Secondary Principals' Association.

Susan Chen is a member of the University of Tasmania Council, is on a number of boards and works with organisations serving education and community. For the last 11 years of her career she was Principal of Marist Regional College in Burnie.

Susannah Coleman-Brown is Coordinator of the Children's University Tasmania, a key part of the aspiration program of the Peter Underwood Centre for Educational Attainment at the University of Tasmania.

Stephen Conway presently serves as Secretary, Department of Education, Tasmanian Government, and has been CEO, TasTAFE. Stephen is also Chair of TAFE Directors Australia and has represented SA on the National TDA Board since early 2000.

Neil Cranston is an Adjunct Professor in the Faculty of Education at the University of Tasmania, whose major interests include school principalship, organisational change, and ethical dilemmas in educational leadership.

Honorable Henry F. De Sio, Jr is Global Chair for Framework Change at Ashoka and author of *Campaign Inc.: How Leadership and Organization Propelled Barack Obama to the White House*. Henry served as deputy assistant to President Obama and as Chief Operating Officer for 2008 Obama for America.

Mark Diamond is interested in applying novel statistical techniques to hard problems in the social sciences and in putting publicly available data to new use. He writes an occasional blog on research matters, at www.markdiamond.com.au.

Kwong Lee Dow AO is a member of the University of Tasmania Council. He retired from the University of Melbourne as Vice-Chancellor in 2004, having earlier been Deputy Vice-Chancellor and Dean of Education over a 20 year period.

Jill Downing is Course Coordinator for the Bachelor of Education (Applied Learning) and the Bachelor of Adult and Applied Learning at the University of Tasmania. Prior to joining UTAS in 2007, she was employed as a management consultant in Singapore.

Janet Dyment is Senior Lecturer in the Faculty of Education at the University of Tasmania, with expertise in curriculum, pedagogy and assessment in teacher education, reflective practice, health and physical education, leadership and outdoor learning.

Jeff Garsed is currently Research Officer with the Australian Education Union Tasmanian Branch. His PhD research investigated the engagement of Tasmanian teachers in an integrated curriculum approach known as Essential Learnings.

Scott Harris has been the Chief Executive of the Beacon Foundation for the last 15 years, taking the work of the Foundation from a Tasmanian only organisation to a truly national group working with over 200 schools across Australia in lifting the educational and employment opportunities of young people.

Ian Hay is Professor Emeritus and the former Dean of the Faculty of Education, University of Tasmania. Among his areas of expertise are language acquisition and social and emotional relationships, and their effects on educational attainment.

Sue Kilpatrick is an expert in the economics of education and Pro Vice-Chancellor (Students), University of Tasmania, whose responsibilities include access and outreach, and pathways to the University from schools and vocational education and training.

Ted Lefroy is Director of the Centre for Environment at the University of Tasmania. The Centre was set up in 2005 to foster collaborative research between the University, government, industry and community.

Lynden Leppard is a doctoral candidate at the University of Tasmania, with a particular interest in improving organisation feedback systems and helping leaders to effectively manage under-performing staff members.

Yue Ma (Melody) is a doctoral candidate in the Tasmanian School of Business and Economics at the University of Tasmania.

Michelle Louise Mendoza-Enan is a doctoral candidate in the School of Land and Food at the University of Tasmania.

Ian Menter (FACSS) is Professor of Teacher Education and Director of Professional Programmes at the University of Oxford with expertise in comparative research on teacher education policy across the United Kingdom.

Adam Mostogl, Tasmanian Young Australian of the Year (2015), is the Principal, Illuminate Education & Consulting, which inspires young people to embrace creativity in finding business solutions to simple problems, and to rethink approaches to learning.

Marion Myhill is Associate Dean International in the Faculty of Education, University of Tasmania with expertise in educational psychology and applied psycholinguistics, human development, learning, cognition, and first and second language acquisition.

Rosie Nash is a doctoral candidate and associate lecturer in the School of Pharmacy at the University of Tasmania.

Angela O'Brien-Malone is in the School of Psychology at the University of Tasmania, and has a long-standing interest in program evaluation and research methodology, as it applies to examining efforts to improve access and participation in higher education.

Olumide A. Odeyemi is a doctoral candidate in Fisheries and Aquaculture at the Institute for Marine and Antarctic Studies at the University of Tasmania.

Christopher Orchard is Course Director in Creative Industries at Charles Sturt University, and a PhD candidate at the University of Tasmania within the Tasmanian College of the Arts, working to generate interdisciplinary dialogue on landscape.

John Polesel is a Professor in the Melbourne Graduate School of Education with expertise in education and training structures and policy, comparative education, post-school destination studies, curriculum, equity, and the sociology of education.

Annalise Rees is a doctoral candidate at the University of Tasmania within the Tasmanian College of the Arts with interests in how artists research and develop bodies of work through experimentation and exploration.

The Honourable Jeremy Rockliff MP is the Deputy Premier of Tasmania and Deputy Leader of the Liberal Party in Tasmania, and Minister for Education and Training, Minister for Primary Industries and Water, and Minister for Racing.

Michael Rowan is an adjunct professor in the Division of the Deputy Vice-Chancellor (Students & Education) at the University of Tasmania and was Pro Vice-Chancellor of the Division of Education, Arts and Social Sciences, University of South Australia.

David Sadler is Deputy Vice-Chancellor (Students & Education) at the University of Tasmania. Professor Sadler heads up a large Division responsible for enabling quality learning and student experiences at the University.

Andreas Schleicher is Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General at the Organisation for Economic Co-operation and Development (OECD) in Paris.

Elaine Stratford is the Interim Director of the Peter Underwood Centre for Educational Attainment at the University of Tasmania. A geographer, she has a strong commitment to understanding the conditions that enable people to thrive throughout the life-course.



Karen Swabey is Associate Professor and Head of the School of Education at the University of Tasmania. She is passionate about teaching in the health and physical education field, and about coaching and mentoring to enhance professional experience.

Stuart Thorn is the Coordinator of Bigger Things, a partnership between the Tasmanian Government and University of Tasmania, which forms part of the Underwood Centre's aspirations program.

Judy Travers works in the Tasmanian Department of Education as the General Manager of schools, colleges and child and family centres in the south of the state, and has been a teacher, Principal, District Superintendent, Manager Learning, and Director-Centre for Excellence in online learning.

Frances Underwood is Patron of the Peter Underwood Centre for Educational Attainment, and served Tasmania during her late husband's tenure as Governor of Tasmania. Mrs Underwood was also a passionate educator in music and English and former head of the junior school at the Friends' School.

Indira Venkatraman is enrolled in a Masters of Commerce by Research at the University of Tasmania, examining the impact of changes in corporate strategy on the accounting treatment of IT expenditure and the management of IT investments.

Her Excellency Professor the Honourable Kate Warner AM is Tasmania's 28th Governor, and was sworn to Office at Government House on Wednesday 10 December 2014. Previously she was Professor, Faculty of Law, at the University of Tasmania and Director of the Tasmanian Law Reform Institute.

Jane Watson is Professor Emerita at the University of Tasmania, with expertise in mathematics education. A Fellow of the Academy of the Social Sciences, she is also recipient of the Vice-Chancellor's Research Excellence Medal.

John Williamson is Dean of the Faculty of Education at the University of Tasmania. His present research includes how principals and teachers perceive accountability, the development of a professional teacher identity, the development of pedagogy skills in the classroom, and the nature of school leadership in different contexts.

Suzie Wright is a research assistant in the Faculty of Education at the University of Tasmania, presently working on an Australian Research Council Discovery Project on Modelling with Data: Advancing STEM in the Primary Curriculum.

Getting into the education conversation: learning about GERM, PISA, TEMAG and more

Her Excellency
Professor the Honourable
Kate Warner AM,
Governor of Tasmania



Introduction

I was delighted that my schedule allowed me to attend the first day of the Education Transforms Symposium. My first impression was to register a feeling of relief-tinged satisfaction in the strong attendance that is promising for the success of Underwood Centre. There was such a good cross-section—so many teachers from across the state—from primary and secondary schools and colleges, from public and private schools, from the Launch into Learning programmes for babies, toddlers and pre-school kids to TAFE teachers and University administrators and academics. It was school holidays—a time when teachers are taking a well-earned break. To see so many giving up their holidays to attend such an event is testament to their dedication. And the attendance of politicians from across the political spectrum was particularly encouraging. Many of them attended most, if not all, sessions. The cross-party support shown was promising.

For me, the symposium was a learning opportunity—one of listening to and absorbing the context for better understanding the challenges and opportunities we face in Tasmania to improve educational aspirations and outcomes, and to harness the transformative potential of education. To give my observations some structure, I will first mention a few points that struck a chord with me. I will then share what I gained from networking during the day. And, while being aware it may be better not to reveal my rather startling ignorance, I will then detail my new-found knowledge of three acronyms that will better place me to understand the education conversation. It is at least possible that there are others with an interest in the education issue who are similarly learning.

Some chance observations

An impressive array of international experts addressed the conference. For example, we heard from Ian Menter, Professor of Teacher Education at Oxford. He spoke about the influences and paradigms of teacher education and was critical of the craft based view of teacher training with the consequent withdrawal of some universities from teacher education. His point that research, policy and practice should be brought together is central to the aims of the Underwood Centre. Partnerships between schools, policy makers and the University are important.

Andreas Schleicher, who leads the Directorate for Education and Skills with the OECD, explained that successful schools are characterised by high educational aspirations in which it is assumed every student is capable of succeeding. It makes sense that teachers' expectations can affect a student's capacity to learn. In another lesson that may be useful in Tasmania, he argued that a way of dealing with school closures and amalgamations opposed by local communities is to build the new school first—show what that school has to offer before closing the small schools. In relation to teacher training he stressed the need for teachers to continually research their own practice, learning all the time with incentives and encouragement to undertake assessments for feedback. He gave Portugal, Poland and Brazil as sound examples of ongoing teacher training; teachers are encouraged to take risks in a supportive environment.

Getting into the education conversation: learning about GERM, PISA, TEMAG and more

In one Hothouse session I attended, Scott Harris from the Beacon Foundation asked: 'Do we agree there is a problem?'¹ He added, 'This does not seem to be clear'. The importance of how we answer this question was highlighted for me by the presentation from the former Secretary of the Education Department, Colin Pettit, and his colleague, Liz Banks. Colin Pettit was concerned by the tone of press reports about education in recent times, noting that there was much good in what is done here that is not receiving the same exposure. Aware of the need for evaluation and evidence, nevertheless he was also concerned that such press adversely affects public confidence in our schools. He argued that four out of ten Tasmanians rely upon social welfare and suggested that when analysis of outcomes controls for socio-economic status, Tasmanians fare as well as other Australians of similar SES, and do better in some aspects such as school attendance in the early years. Either way, his larger point is well made: striving to improve educational outcomes in Tasmania should be done constructively.

Pettit and Banks also referred to Launch into Learning and the adult literacy program *26Ten*. I have visited a number of Launch into Learning programs at schools and Child and Family Centres. This program has been evaluated and been shown to improve learning outcomes. However, the challenge is to attract the 10 per cent who never attend and engage them. This is the group that has the most need for early intervention. Tackling adult literacy issues is an important way to improve educational aspirations and outcomes for the next generation. The *26Ten* program with its 23 literacy co-ordinators and 1000 volunteers is tackling this issue. It seems there has been a tendency to not persist with promising new programs, initiatives and policies, sometimes even before they have been properly tried or resourced. This tendency is something we should think about in relation to the initiative for some regional secondary schools to offer Year 11 and 12 subjects.

What this presentation from the Department of Education highlighted for me was the importance of cross-party support. Education must not be a political football. The current momentum in relation to improving educational outcomes must not be lost. In aiming to improve outcomes and aspirations we must be constructive and careful not to denigrate the current system and our current teachers.

Networking

With all conferences, chatting and networking during tea and lunch breaks is always valuable. In the one day that I attended I met a principal of a State primary school, whose breadth of experience and wisdom was inspiring. I spoke with a secondary teacher who related her experience of teaching in a disadvantaged school which left her at first tearful and anxious and led her to transform the way she approached her task and to do so successfully.

I also spoke with two people who were passionate about the way reading is taught and who were concerned that the currently accepted approach was failing our children. They raised the issue of reading philosophy a number of times during the conference. I am no literacy expert and have no expertise to determine whether phonics or whole language is the best method or whether the answer is in a balanced approach. However, I think it important that the symposium provided the opportunity to canvass these issues.

¹ Hothouse sessions were extensions of others held during the 2015 Dark MOFO festival a month earlier and are described in the following terms: "For three days, three teams of thinkers will inhabit the Hothouse, a massive built structure on Salamanca Lawns in Hobart's CBD. Their brief: to think through, and respond to, the issue of education in Tasmania. The twelve best ideas will be presented at a community forum. This latest iteration of the Future Hobart Project (part of last year's Dark MOFO, in collaboration with the City of Hobart) coincides with the 125th anniversary of the University of Tasmania, and has been brought into being with the help of Clemenger Tasmania/OMD. The Hothouse was designed by Sydney's Cave Urban and UTAS Masters of Architecture students" [<https://darkmofo.net.au/program/the-hothouse/>].

Getting into the education conversation: learning about GERM, PISA, TEMAG and more

In my role as Governor, I have had the opportunity to meet with a speech pathologist, Rosie Martin, who has had great success in being able to teach illiterate prisoners how to read. She contends that speech pathologists have a lot to offer in the field of remedial literacy. Without taking sides in the 'reading wars' I believe the Underwood Centre has the potential to promote collaboration among researchers from diverse fields, including education, psychology and speech pathology, so they can get together and work in ways that cross over boundaries on literacy and other issues. In here focusing on literacy, I should note that in the first sessions of the day the Honorable Henry de Sio reminded us of the skills and knowledge that young people will need in our fast changing world, stressing that empathy is as important as reading and maths in any learning framework.

What are GERM, PISA, the TEMAG report and Essential Learnings?

The symposium was a learning exercise for me. In asking the question above, I am exposing an embarrassing ignorance of many terms and concepts about which everyone seemed to be well-informed. From Dr Jeff Garsed of the Australian Education Union, I learnt of GERM, the Global Education Reform Movement that claims schools and teachers are failing and that underfunding is not the problem but teacher quality is. GERM has a number of symptoms, one of which is a focus on standardised tests such as NAPLAN. Dr Garsed argued that NAPLAN is being misused, that it not a diagnostic tool, that it only examines fragments of learning and that it is inappropriately used to evaluate schools. It seems that there is a strong argument that teaching effectiveness should not be measured

using standardised tests and that focusing on them has increased teaching to the test and narrows curricula to prioritise reading, maths and mechanistic instruction. Another symptom of GERM and standardised testing is increased competition between schools, and it is argued that when there is increased competition schools co-operate less. Finland and Canada, it seems, have resisted GERM and instead have individualised curricula that emphasise equity and achievement for all, as opposed to the standardisation characterised and promoted by GERM.

I was aware that PISA was some kind of test to assess educational outcomes. So when following up, I discovered that it stands for the Program of International Student Assessment, and is a survey conducted by the OECD that aims to evaluate education systems worldwide, testing the skills and knowledge of fifteen-year-old students.

Essential Learnings or ELs were mentioned in one of several Hothouse discussions. One person observed that many teachers liked the flexibility of Essential Learnings. I had a recollection of the Essential Learnings debate that raged some ten years ago. I silently asked, 'What exactly was that scheme?' So I have refreshed my memory. It was a new curriculum to be phased in from 2005 across all Tasmanian schools from kindergarten to Grade 10, and it was to be fully implemented by 2009.

The five ELs were umbrellas under which students' work was organized. These were Thinking, Communicating, Personal Futures, Social Responsibility, and World Futures. The curriculum was controversial. Supported by a strong research base, which included sound work on child development, it was heavily criticised on the

grounds that it gave insufficient prominence to key academic areas, particularly English, maths and science, and there were concerns about consistency in assessment. It was dumped after the 2006 state election. The school curriculum thus became intensely political—and there are lessons to be learnt in the story of this attempted educational reform, which should be heeded in the present and in future education debates.

The TEMAG report was mentioned by Professor Ian Menter, who described it as 'encouraging'. TEMAG, oh dear! Another gap in my knowledge! I now know that it is the Teacher Education Ministerial Report, *Action Now: Classroom Ready Teachers*, released by the then Australian Government Education Minister, Christopher Pyne, on 13 February 2015. TEMAG deals with initial training to better prepare teachers with the skills they need for the classroom. The report has suggested various refinements, including more rigorous selection, more structured practical experience and more robust assessment of classroom readiness. I note that whilst some aspects of the report have gained approval, such as stronger partnerships between universities, school systems and schools and portfolios for pre-service teachers, there is scepticism in some quarters about more measuring and processing for accreditation of teacher education programs.

In conclusion, I gained enormously from my attendance at the Education Transforms Symposium and I am looking forward to reading the published papers from it. It was a stimulating and exciting beginning to the Underwood Centre's work.

The Honourable Jeremy Rockliff, Minister for Education



Earlier this year I had the opportunity to share in the international symposium, entitled *Education – Underpinning Social and Economic Transformations*.

With diverse representation—at state, national and international levels—the symposium provided a valuable opportunity to inspire, share information, and to test and enrich our understanding of how we can meet the challenges of the 21st century within our education and training sectors and more broadly.

The Tasmanian Government is committed to improving outcomes for all Tasmanians and recognises that addressing the needs of our regional communities and economies is paramount.

The Tasmanian Government also recognises that education has a critical role to play in social and economic transformation, so the focus of this symposium was of immediate relevance to our Tasmanian context. It complemented the opening of Tasmania’s Peter Underwood Centre for Educational Attainment. Peter Underwood’s passion and belief in the transformative power of education made the focus of the symposium all the more pertinent both in timing and in content.

Education underpins progress at individual, societal and economic levels and is, undoubtedly, a powerful and effective means to ensure a bright future for this generation and for future generations.

Events such as the symposium exemplify the importance of bringing together international leaders in the field and reinforce the value and importance of the Peter Underwood Centre for Educational Attainment. The Centre has three high-level, integrated and com-

Minister’s Message

plementary functions: research; professional development for the workforce; and participation and aspiration. Centralising and utilising the University’s proven capacity to undertake research and attract funds is very important.

Developing our workforce across education is a priority. High quality teaching, leadership and support is fundamental to improving outcomes. The strategy develops the skills of those working in education, with a focus on driving school improvement and student learning. The workforce development activities of the Centre will have a critical focus on improving the effectiveness of our educators, understanding their skills and qualification needs, and delivering and evaluating courses and training accordingly.

Education is everyone’s business and everyone’s responsibility, and an essential component of this entails our communities placing a priority value on educational participation, aspiration, achievement and attainment. Improving pre-tertiary educational aspirations, participation and attainment is an important part of shifting culture in ways that ensure all Tasmanians recognise the value of education.

While work is well under way there remains a lot more to be done. This State Government does not accept that Tasmania’s future will be forever shaped by its current context. We must find ways to value-add that break the cycle of disadvantage caused largely by poverty otherwise Tasmania will not prosper as it should. If we can lift education, we can lift Tasmania. To this end, we are firmly committed to improving participation, achievement in learning, retention and attainment.

The Honourable Jeremy Rockliff, Minister for Education

Quality teaching, supported by quality leadership, is critical to ensuring success, effecting positive educational outcomes and, indeed, raising standards. Through openness, transparency, collaboration, innovation and progress, influenced by research and evidence of what works and directed always at improving educational outcomes for our students, we will increase our capacity to transform educational outcomes for all and, in doing so we will strengthen Tasmania's future.

The Tasmanian Government has a strong focus on the importance of students completing and valuing Year 12, with a highlighted emphasis on attainment, supported by UTAS and by TasTAFE. Life's opportunities stem from effective educational engagement and achievement and, without doubt, high achievement across education and training sectors enables individuals to effectively embrace the challenges and opportunities of the 21st century.

Minister's Message

Supporting students to identify their interests, strengths and aspirations, with an essential focus on how to use this knowledge to make good choices for their future is very important. Programmes such as My Education aim to ensure that young Tasmanians are job-ready and have the knowledge and skills to compete in a rapidly changing world and global economy.

In terms of our diverse education landscapes, the symposium provided a valuable platform to recognise the complexities of meeting the challenges of the 21st century and it was a privilege to attend. It was a valuable opportunity for leaders across education to canvass, inspire and share information, and it certainly provided an opportunity to reflect and explore what works well in Tasmania, Australia and around the world.

Frances Underwood



Peter Underwood was a passionate believer in the transformative power of education. In his words “the most important infrastructure of any nation is an educated and functionally literate population”. The Peter Underwood Centre, named in his honour, aims to draw on the best international evidence available about effective ways to improve educational aspirations, participation and attainment within the Tasmanian context. *Education – Underpinning Social and Economic Transformation* was an important meeting in Hobart in July 2015, which focussed on these issues. It was a positive collaborative effort between the University of Tasmania and the State Government, and the Centre’s first international symposium.

It was clear from those who addressed the symposium that the issues affecting high educational attainment are universal. All nations struggle to find effective solutions within their own cultural contexts, many—including our own—nevertheless do so with considerable success, from which we can learn. In the words of one keynote speaker, Tom Bentley, “it is the job of the system to think about the whole student—but different methods, and different structures, are needed to make that happen”.

We are not alone in our quest to lift aspiration and ensure that our young people thrive in a culture of success and sound relationships; experience the joy of learning; benefit from the daily contribution of exceptional teachers; and are the recipients of all the good that arises from effective coordination between family, school and community. The symposium itself was a fine example of how sharing knowledge, effort and resources can stimulate creative thought processes, and build trust-based relationships and social capital in the pursuit of a shared goal.

In achieving such ends, I believe the symposium lifted both the bar and the spirits, and certainly convinced me that we can make a difference by working together across social, academic and political boundaries to build a culture of success in the pursuit of our common goal, and support teachers in what is our most important national work.

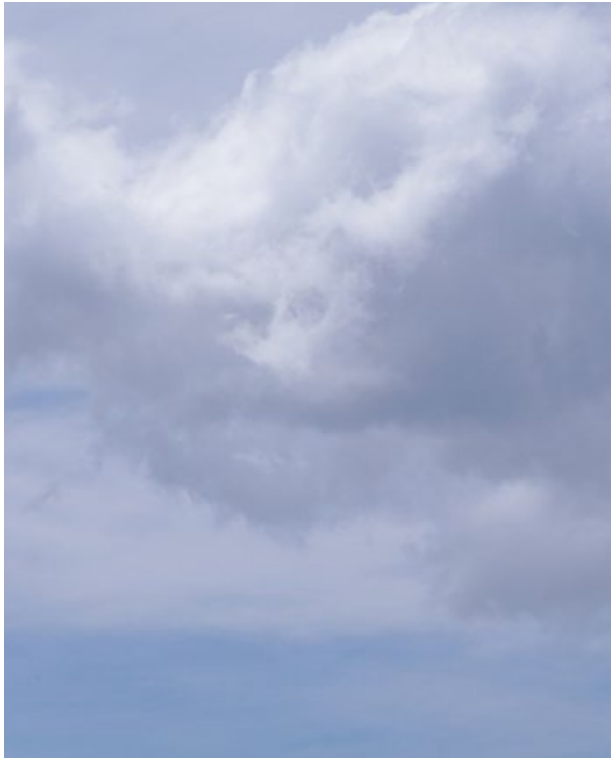
As an educator myself, I found the symposium emotionally energising and intellectually stimulating. It brought to mind words attributed to Michelangelo: “the greater danger for most of us lies not in setting our aim too high and falling short; but in setting our aim too low and achieving our mark”. I went home inspired with hope and high expectations for the future of young Tasmanians. In my capacity as patron I offer heartfelt congratulations to all those involved.

1 Introduction



David Sadler and Sue Kilpatrick

Education in Tasmania
must meet people's
needs and rights
to be supported ...



It is our pleasure to introduce *Education Transforms*, a compilation of papers, reflections, notes, and commentaries from *Education—Underpinning Social and Economic Transformation*, the first international symposium of the Peter Underwood Centre for Educational Attainment.

In February 2015, working in partnership with the Tasmanian State Government, the University of Tasmania established the Peter Underwood Centre for Educational Attainment as a new major centre of excellence. Its principal aim is to investigate, better understand, and improve pre-tertiary educational aspirations, participation and attainment, and to reflect on and influence the ways in which education underpins progress for individuals, communities, and the political economy: this work is fundamentally about cultural transformation of the most profound kind.

The Underwood Centre bears the name of Tasmania's late Governor, Peter Underwood AC, a University alumnus, accomplished lawyer, esteemed judge and passionate champion of the power of education. The Centre was established in recognition that education in Tasmania must meet people's needs and rights to be supported as they work to ensure their successes and choices in future work, study and social contexts—and thus give back to the communities and places that comprise this island-state. This recognition is underpinned by an understanding that presently Tasmanians experience sustained underachievement in areas of strategic priority—literacy, reading, science and maths—as measured by a range of national and international indicators. Such circumstances are caused by a complex mix of historical, cultural and organisational factors, and will require the advent of Tasmania-specific or endogenous solutions, drawing on the best international evi-

dence available as to proven and effective approaches to educational and cultural transformation. The symposium was among the Centre's first major public events, and focussed on education as a key determinant of social and economic transformation in regional economies and societies.

One of the objectives of the Underwood Centre is to bring together international leaders in several fields informing aspiration, education and cultural transformation to learn from successes in other regions and, in time, to share our own successes. The symposium was instrumental in beginning this international conversation. Drawing on international research and case studies, the meeting provided a high-level forum to exchange ideas and reflect upon what has worked, why it has worked, and how.

Symposium speakers whose subsequent written work is featured in this publication included leading international thinkers, educators and policy makers.

Henry de Sio was the Chief Operations Officer of US President Obama's 2008 election campaign, is a prominent advocate of empathy in transformational change, and now works with Ashoka. His messages are that innovation happens everywhere, that everyone is able to lead, that there is no room for smallness, and that the job of educators and leaders is to help people step into their bigness.

University of Melbourne Professor John Polesel has as a key focus research on comparative education, school-based vocational education and high stakes testing. John Polesel asks what are we doing about education and training for the 60 per cent of young people nationally, and as many as 70 per cent in Tasmania who do not [yet] go on to university after school?

Oxford University Professor Ian Menter has longstanding expertise embracing policy for teacher education and teachers' work, and has carried out several competitively-funded projects on 'home international' comparative studies. He sets us the challenge of helping teachers move from regarding teaching as a craft, to being reflective teachers, and then enquiring, research-oriented professionals and transformative change agents.

Andreas Schleicher is the Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General of the Organisation for Economic Co-operation and Development. He draws on a wealth of international experience when he notes that learning is a social experience. Thus, there are critical relationships and expectations we have and place on our children, and crucial and high expectations we need to have of our educational leaders. Effective teachers are themselves active learners who innovate, take risks and share their practices.

Tom Bentley is a writer and policy adviser presently Education Advisor to the Melinda and Bill Gates Foundation and was Deputy Chief of Staff to the Australian Prime Minister Julia Gillard, where he was responsible for long term policy planning and implementation. He notes that the costs and risks of educational failure are growing, and that parents are voting with their mortgages to move to where local schools successfully engage their students. He introduces a number of innovative models from around the world that work in today's diverse communities.

Christine Cawsey AM, the Principal of Rooty High School, Victoria, spoke of her innovative team and the ways in which it has been transforming educational outcomes at the school. Cawsey conveyed how, at the centre of the work to create a culture of success at Rooty Hill High School, is a novel collaborative approach to school planning and evaluation, based around a capability-driven curriculum; personalised learning; and leading for innovation driven by a research-based culture, and underpinned by partnerships and professional practice.

Several colleagues based at the University of Tasmania and in the Tasmanian State Government, as well as those at other Australian universities also provided stimulating papers at the symposium, and some of these are also in this collection. In addition, we are able to showcase the views of many of our speakers, panelists and symposium guests in short reflections on the transformative potential of education.

Bringing together some of the best minds from around the world to discuss optimal approaches to educational transformation internationally, we have now set the scene for educational and cultural transformation in Tasmania—change that will affect social, economic, and community life in profound ways. Not surprisingly then, one question we asked at the symposium, and which is implicit throughout this collection is this: what are the limits of our ambitions for Tasmania? We have considered those areas of the world where educational outcomes have been world-leading and where education has been the engine of economic and social improvement. Our goal is to see Tasmania among those jurisdictions that is leading the way.

2

New literacy and the
changemaker generation:

Why empathy
is as
important
as reading
and math²



New literacy and the changemaker generation: Why empathy is as important as reading and math

The Honorable
Henry De Sio



Key insights

The Changemaker Effect is accelerating the transition to a world characterized by change, which is the polar opposite of the world of repetition society has long known.

Social entrepreneurs are uniquely positioned to help facilitate societal understanding of the learning needs of young people in a world where changemaking is the new norm.

Every child must master empathy and teens must be practised at the new requisite skills of cognitive empathy-based ethics, working in teams of teams (a different type of teamwork), new leadership, and changemaking.



Transformative education must begin with a fresh look at the societal landscape our children and youth are stepping into. A historical shift has radically changed the complexion and complexity of the world our children must learn to command. While most of us still see the world as it was when we entered (allowing for some expected evolutionary change), it is really quite dissimilar to the one our young people will soon navigate as adults. In fact, in many ways the two are polar opposites, each requiring a very different skill set and outlook. Rising generations must be equipped with an entirely new learning framework for life success and contribution that is aligned with the transformed strategic environment that awaits.

For many generations, society had a distinctive organizational design characterized by a few people at the top of the system telling everyone else to repeat their specialized skills harmoniously, faster and faster. The limits of this one-leader-at-a-time model have become evident, however. The acceleration of change and the consequential proliferation of problems have overwhelmed our institutions. Today, the walls of vertical society are coming down to reveal a new strategic landscape that is fast, fluid, and hybrid in character.

With hierarchies flattening, silos collapsing, and advances in technology lowering the barriers to individual participation, more of us have the ability to access information and contribute more fully in every aspect of society. We carry in our pockets and purses the tools that were once available to only a few. Our personal networks, collaboration platforms, printing presses, and media distribution channels—these are now at our fingertips and can be immediately applied to any problem or opportunity. Our one-leader-at-a-time past is giving way to a new everyone-a-leader present.

New literacy and the changemaker generation: Why empathy is as important as reading and math

This level of individual empowerment has given rise to the Changemaker Effect on society. A simple explanation of this phenomenon follows:

In the everyone-leads system, the speed of change accelerates relative to our one-leader-at-a-time past. Why? Leaders make change. If you agree that everything you change changes everything, and everyone is doing it—then it follows that we live in an everyone-a-changemaker world.

The rapid increase in the number of changemakers is producing unprecedented omnidirectional change in society, and it is occurring at a rapidly accelerating rate. Evolutionary adaptation has long existed, but this transition from a world defined by repetition to one uniquely defined by change is as dramatic as making the shift from a flat world to a round one.

Let's consider this differently with a story that is obviously American in context, but suitably illustrative of the broader point. Imagine it is approaching game time as the football player makes his final preparations. Alone in the locker room, he slips his pads over his head and fits them perfectly on his shoulders. Next, he throws on his jersey, the large numbers tightly wrapping around the bulky armor that frames him. Finally, he pulls on a helmet and carefully fastens the strap across his chin. Now ready, the athlete gives the hard protective shell a slap with both hands and storms out of the locker room to join his teammates. He sprints through the tunnel toward a deep green playing field washed in the warm glow of a bright spotlight. It is a moment for which he has prepared his whole life.

As he approaches the others, his pace slows. Something is clearly wrong. The goal posts that typically mark each end of the field are down. In their places are two large nets. The brown 'pigskin' football he knows has been substituted with a football of another sort—one that is rounded and spins out a black and white pattern. The players warming up on the field are unfamiliar. They don't sport the same heavy gear he does. Instead, their hair flies freely in the wind and they are wearing shorts and light clothing that enables them to be nimble.

The game has changed.

There are three likely reactions that follow when the game you know has changed. The first is to freeze in place, watching in fear and confusion as this strange new activity plays out before you. It is a helpless feeling that will keep you a fixture on the sidelines and make you quickly irrelevant. The second is to dig in stubbornly and double down on what you know. In this instance, that might entail lowering your helmet and running full steam into those unsuspecting players. Of course, that would make you worrisome and even dangerous. You would soon find yourself marginalized and cast aside by the others. The third is to see differently so you can do differently—a mindset shift that facilitates framework change.

In the everyone-leads system, the speed of change accelerates relative to our one-leader-at-a-time past. Why? Leaders make change. If you agree that everything you change changes everything, and everyone is doing it—then it follows that we live in an everyone-a-changemaker world.

New literacy and the changemaker generation: Why empathy is as important as reading and math

Playing in the new game must begin with a personal recalibration to one's environment or circumstance. Real transformation is possible only after mindset shift. This is a daunting prospect, but less so once it is widely understood there is a new game requiring a wholly different set of rules. The old rules will not work in the new game.

We are similarly faced with a game-changing moment as society shifts from a longstanding model based on repetition to the polar-opposite game of change. This process will challenge all of our existing notions for how we work together and participate effectively in society.

For example, teamwork in the repetitive system was based on contribution to the team along narrow lines of position or function. The new game requires a very different kind of teamwork—a team-of-teams approach—to command an environment of rapidly accelerating change. In this system, everyone must have the capacity to form into an open, fluid team of teams working across old boundaries to confront complex challenges and to create new possibilities. Different from the old team built on specialized skills, individuals are valued for their unique range of competencies, perspectives, passions, and experiences that can be brought to the opportunity at hand.

This observation gets to a second point about the differences between the two paradigms. In the new game, the premium is on innovation as a function of change, not repetition. If innovation had long been associated with advances in technology to create more efficiency in repetition—the assembly line, for example—we must now rethink that connotation in this new context.

Innovation is, in fact, the ultimate result of a wall falling between two sides that would not otherwise connect. Sometimes technology assists in this transformation, at other times it is an outcome, but innovation is a very human activity. In the team-of-teams way of working, the value-add in any moment is the new team added to an existing one to act on the ever-changing nature of today's problems and opportunities. The ability to tear down walls and connect others into a team of teams is, therefore, a requisite new leadership skill.

Third, we need a rewiring of our collective thinking about leadership in this new era in which everyone leads. Leadership in the team-of-teams system is not linear—it is omnidirectional, requiring “other-awareness.” It is a new kind of leadership that also requires everyone on the team to see the big picture and advance solutions that contribute to positive change. All of these observations point to the fact that one-leader-at-a-time and Everyone A Changemaker™ are opposing paradigms. The skills needed to navigate a world based on efficiency in repetition are very different from those needed in a world where the premium is on change and innovation (Table 2.1).

New literacy and the changemaker generation: Why empathy is as important as reading and math

Table 2.1.
Comparing old and new paradigm characteristics

OLD PARADIGM	NEW PARADIGM
Defined by efficiency in repetition	Defined by change and innovation
One leader at a time	Everyone recognized as a leader and powerful contributor
Team based on repetitive skills executed harmoniously in a vertical system	Team of teams fluidly evolving across old boundaries to address complex challenges in a hybrid landscape
Be practised at a skill	Be practiced at the core skills of empathy, teamwork, new leadership, and changemaking
Transaction	Interaction
Premium on expertise and authority based on specific knowledge	Premium on ethical fiber — personal credibility and authenticity based on changemaking for the good
Communication through authoritative voice	Communication through storytelling and experiences
Limited distribution of information based on “need to know” to perform a job or function	Open, transparent communication flow based on everyone having information on which to form a team of teams and act

With changemaking as the new norm, the pace of change in every sector and in every individual’s life will accelerate. In order to navigate and command this new landscape, everyone must be a skilled and practised changemaker. Herein lie the stakes for the new learning needs of our children and youth.

In a world of interaction and complexity—one that relies on collaboration for success and contribution—the stakes for every child mastering empathy have never been higher. Team-of-teams is a way of working that is highly interactive, and individual integrity, a premium standard in this system, is directly proportional to change pursued for the good. Also, rules cannot keep up with this level of change, making cognitive empathy-based ethics essential in our everyday leadership and changemaking.

Innovation is the ultimate result of walls falling between two sides that would not otherwise connect. The ability to tear down walls and connect others into a team of teams is, therefore, a requisite new leadership skill.

Youth learning must, therefore, be calibrated so teens are practising cognitive empathy-based ethics, co-creative teamwork (team-of-teams), a new kind of leadership in which everyone on the team is an initiatory player, and changemaking. Learning in the early grades must be focussed on the mastery of empathy as a fundamental skill needed for success and contribution in today’s dynamically changing world.

To make this framework the foundation for education transformation, there must be societal awareness of the historical forces that are reshaping the global landscape. What is needed today is a sustained shift in thinking. Mindset shift at scale will produce the broader imperative for framework change at scale.

New literacy and the changemaker generation: Why empathy is as important as reading and math

To this end, social impact leaders are uniquely positioned to help facilitate a global mindset shift that will lead to societal framework change. Thirty-five years ago, Bill Drayton (2013), a pioneer of social entrepreneurship, introduced the notion that there is nothing more powerful than a bold new idea in the hands of an exceptional entrepreneur innovating for the good of all. Behind his visionary leadership, the field of social entrepreneurship has grown. Today, the organization he founded, Ashoka, has a fellowship comprised of the world's leading social entrepreneurs, numbering more than 3,200 innovators in 85 countries.

Social entrepreneurs are systems changers who work tirelessly for the public. Drayton describes these individuals as society's 'essential corrective force'. In addition to the ideas they bring to bear on the world's most complex issues, leading social entrepreneurs have mastered the key skills needed for the new societal paradigm, and they apply them to tackle these seemingly intractable social challenges. Ashoka social entrepreneurs everywhere—regardless of culture, religion, or political system—act on their empathy and inspire other changemakers by removing obstacles that hinder innovation and create the conditions for changemaking.

Twenty-five per cent of the Ashoka fellowship work on issues directly related to the health and well-being of young people, advancing powerful ideas and approaches aimed at giving agency to a generation of confident contributors in the world. They are transforming classrooms, playgrounds, neighborhoods, and communities. Individually, these leading social entrepreneurs command the foundational skills critical for success in the new strategic landscape. Collectively, they model and promote the 'how-to' for living in a changemaker world. However, more is needed to help society through this shift.

In recent years, Ashoka has devoted new resources and attention to carefully identifying, selecting, and collaborating with teams of educators in primary and secondary schools that are helping young people to develop the strategies and abilities needed for a changemaker world. In aspiration and practice, students are cultivated as active contributors.

The emergence of this worldwide network of Changemaker Schools offers a model others can look to for prioritizing empathy and changemaker skills in student outcomes. The teams in these schools have demonstrated their ability and willingness to develop and test new ideas, rather than just follow established norms. Beyond their local focus, they are also global frame changers with the obvious commitment, influence, and reputation to persuade others to follow their lead.

The Changemaker Schools network and the world's leading social entrepreneurs—in conjunction with parents and social impact leaders in higher education, citizen-sector organizations, business, media, and youth venture entrepreneurship—are contributing to a growing global awareness that the learning framework for young people must be aligned with the new societal landscape.

Everyone A Changemaker™ is not an alternative model for success or a utopia to which we all should aspire—it is the new reality. We already live in a world that requires every person to understand the nature of how the world is changing and the new skills needed to navigate and lead. As this new reality comes into sharper focus, society will have important information on which to act.

New literacy and the changemaker generation: Why empathy is as important as reading and math

The new learning framework will follow societal mindset shift. We will see evidence when principals, board members, and others in and around the education community know that the primary school's success or failure is based on children in the early grades grasping and practising empathy. Cognitive empathy-based ethics will be elevated as a foundational skill on a level with reading and math.

Teens in middle and high school will be mindful that they must be changemakers practised at the four core skills needed for the new game (empathy, teamwork, new leadership, and changemaking). Stakeholders will count the number of student-created and student-run groups on their campuses as critical preparation indicators. Parents will actively evaluate if the culture of the school is *can* and students are instilled with a *dream it, do it* belief. Finally, learning outcomes will reflect the new imperative that graduating students must demonstrate the capacity to command the open, fluid team-of-teams landscape awaiting them.

Holding up a new lens on the world we are in will offer a better perspective to discern the qualities young people must have for success and to fully contribute. As this package of attributes becomes the benchmark for youth learning and parenting—having an innovative mind, a service heart, an entrepreneurial spirit, and a collaborative outlook—we will have transformative education that is aligned with the new societal landscape.



3

Transitions from school in Australia – the winners and losers



Transitions from school in Australia – the winners and losers

John Polesel



Thinking about the transitions of young people from school to further study and employment is critically important. Let me say upfront that most young people make a successful transition from school to vocational education and training or to higher education, but the outcomes for a significant minority are worrying. Moreover, we know that gender, socio-economic status and location all have an impact on the quality of transitions. Some groups are much more vulnerable than others to poor transitions. I want to focus particularly on those who don't go to university or into any form of VET, because these are the ones most likely to be in what researchers like Castles and Standing have called in various publications the 'precariat'—that is the group made up of employees in short-term contract positions, insecure jobs, with no paid holidays or sick leave, and receiving little training. Castles and colleagues have also noted the decline of secure, full-time jobs for young people in modern OECD economies.

Just a note first on the data sources. I will be focussing on data collected in the first three states here.

- Victoria and Queensland – population surveys
- New South Wales – sample survey 2014
- Western Australia and South Australia – limited or pilot tracking
- Australian Capital Territory – no tracking
- Northern Territory – trial survey in 2005 involving seven schools
- Tasmania – one-off survey of 2002 Year 10, followed up through Years 11 and 12, involving approximately 6,700 students

These were annual population surveys conducted in Victoria and Queensland—the On Track & Next Step surveys respectively. These are surveys that our team at the University of Melbourne established about ten years ago. Both are now run in-house by the Departments of Education in those states. The third state I am including is New South Wales, where we conducted a sample study in 2014. In all three cases, school leavers were contacted by phone, usually in April or May in the year after completing school, and asked questions about their study and labour market destinations. The Victorian and New South Wales studies included early leavers, although the sample sizes are very small. In the remaining states and territories the data are very patchy.

Transitions from school in Australia – the winners and losers

However, I am going to argue that the patterns of transition and differences for different sub-groups are probably pretty similar across Australia, and that the situation in Tasmania is likely to be close to what I will discuss below. Reports from the Victorian, New South Wales and Queensland surveys are all available online and they are a rich and accessible source of data via Google.

Starting with New South Wales, it is useful to consider two main questions—study status and labour market status (Figure 3.1) Behind these questions are many others: what course was a student taking, what job did he or she secure at how many hours, and so on?

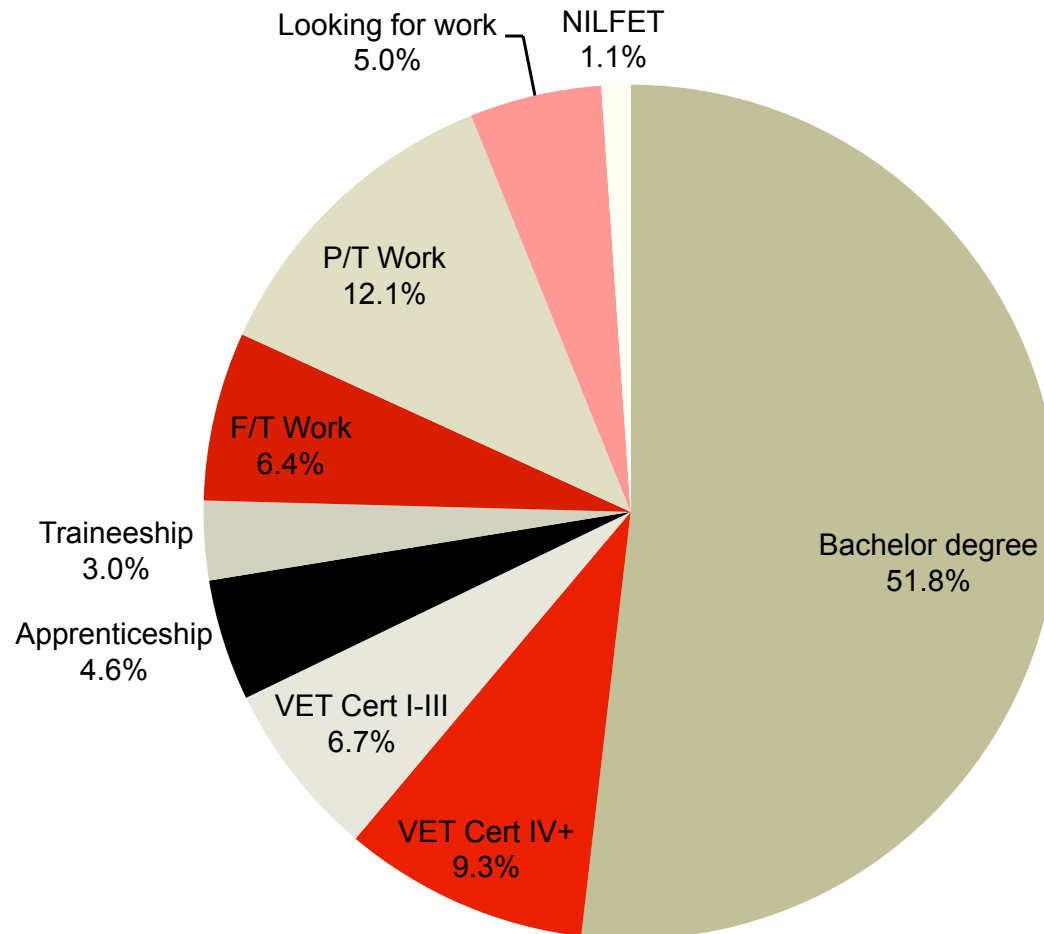


Figure 3.1
Destinations of New South Wales' Year 12 students
completing, 2013

Source: Polesel et al. (2013)

Note: NILFET is Not in the labour force,
employment, or training.

Transitions from school in Australia – the winners and losers

Note the similarities and differences between Queensland and New South Wales (Figure 3.2). The main difference is the latter's lower transition to university and consequently the higher proportion making a direct entry to the labour market.

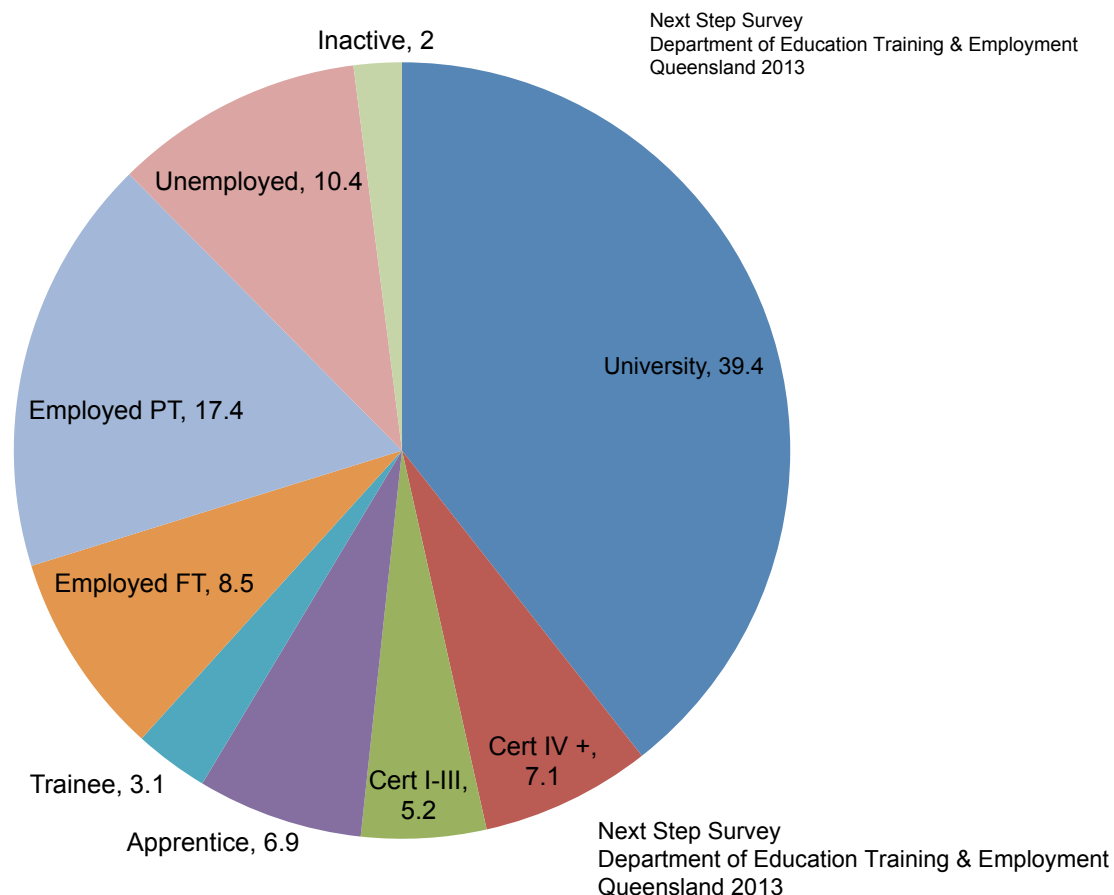


Figure 3.2
Destinations of Queensland Year 12 students
completing, 2013

Source: DET (2013)

Transitions from school in Australia – the winners and losers

Victoria is probably more similar to New South Wales, with almost identical proportions going into university (Figure 3.3).

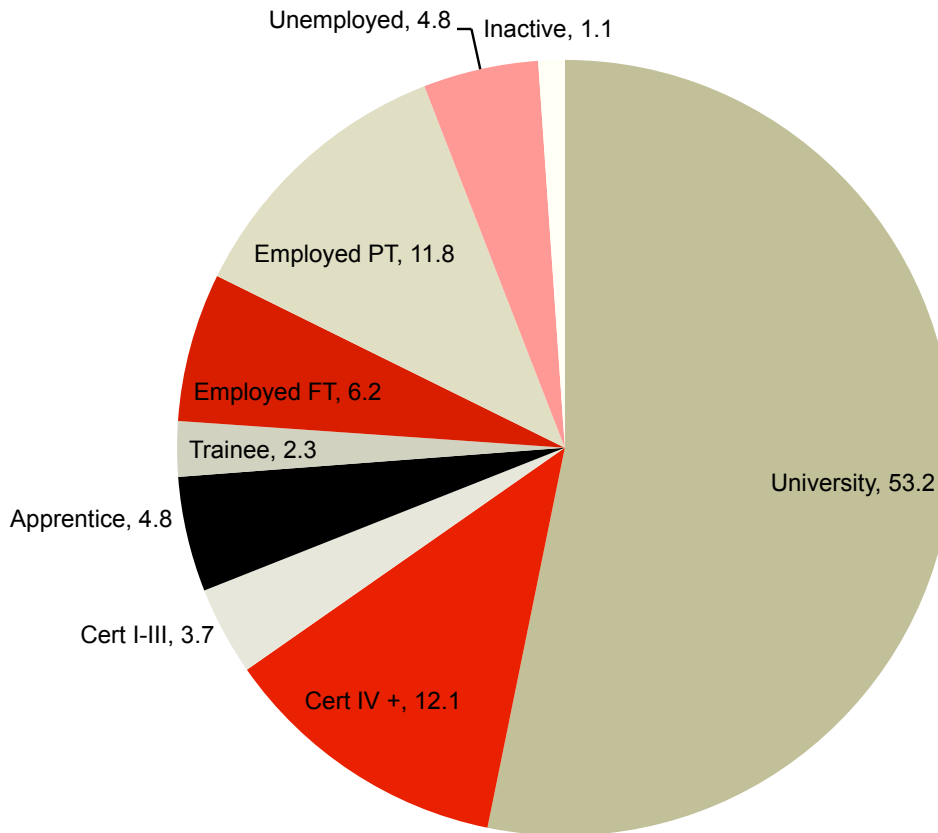


Figure 3.3
Destinations of Victorian Year 12 students completing, 2013
Source: DEECD (2013)

Transitions from school in Australia – the winners and losers

Here, I want to make some general comments that apply to all three states and, by extension, they probably apply to the rest of Australia, including Tasmania. First of all, most young people make a relatively successful transition from school into university, post-school vocational education and training (VET), apprenticeships and traineeships. The most common pathway among those surveyed is to university; this accounts for approximately half the school completer cohort. The next largest destination comprises vocational programs or apprenticeships and traineeships. Overall, the proportion entering different VET or work-based pathways is about one quarter. However, the transitions for the remainder—usually about one quarter of the cohort—are more problematic. This remaining one quarter of the cohort comprises those not in accredited education or training of any kind. Most are in the labour market, and the larger proportion of these is working part-time. Note that only a minority find full-time work. This discussion of the post-school destinations of young people needs to be grounded in the context of an overall apparent retention rate from Year 7 to Year 12 of 76.7 per cent in Australia. In other words, a significant proportion of the secondary school cohort does not even complete school, and the rate varies considerably across the states, regions and equity groups. These apparent retention rates are relatively low by international standards and have barely changed over the last 20 years. Moreover, the destinations of the early leavers are more worrying than that evident with the school completers.

So do these outcomes represent a problem? Should our schools and our policy makers be worried? Is there a problem for this one quarter entering the labour market without any further education or training? I would argue that it depends on what kind of job they are doing and how many hours they are working and I will come back to that. But first, I would like to point out some of the differences for different subgroups of students.

First of all, considering gender is important because it has an impact mainly among those who enter the labour market without any further education or training. Overall, young women are consistently more likely to enter university, but they are less likely to access apprenticeships. These two balance each other out in a sense. Both represent different but secure pathways to highly-paid work and they represent good, though different, outcomes for the two gender groups. However, for those who enter the workforce, approximately equal proportions of young men and young women overall, there are consistent differences in outcomes. Girls are more likely to be working part-time than boys, who are much more likely to find full-time work. This pattern is consistent in all the states we have surveyed and has not changed over time, and this reflects the nature of the labour market itself, which we might characterise as unfriendly to young people generally but actually hostile to young women. Figures 3.4 and 3.5 summarise the pattern evident in Victoria and New South Wales.

Transitions from school in Australia – the winners and losers

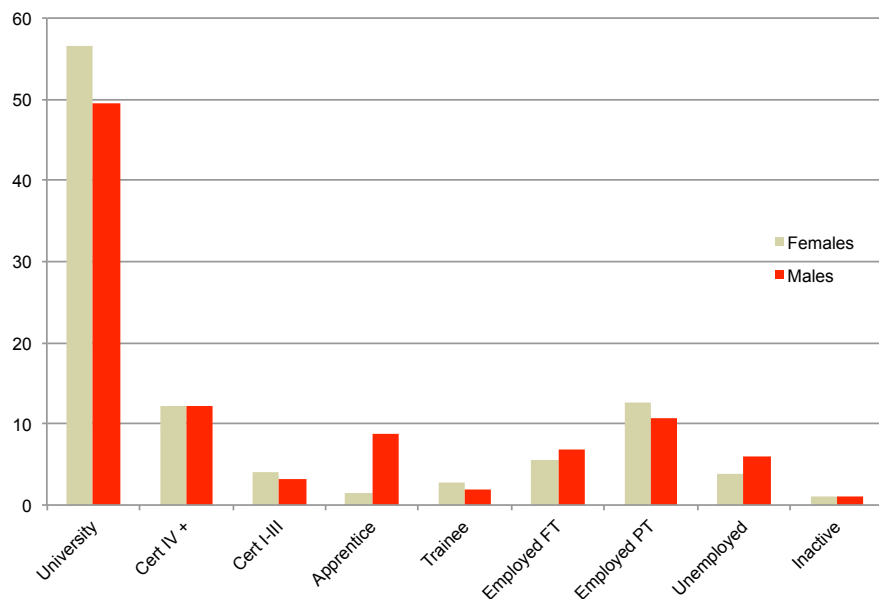


Figure 3.4
Destinations of Year 12 completers
in Victoria, 2013, by gender

Source: DEECD (2013)

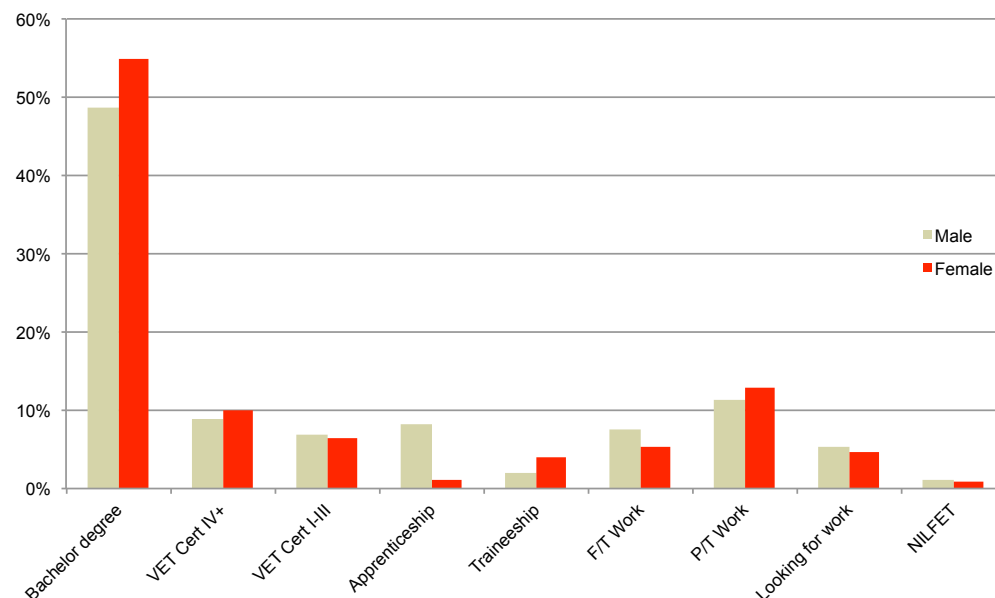


Figure 3.5
Destinations of Year 12 completers
in New South Wales, 2013, by gender

Source: Polesel et al. (2013)

Transitions from school in Australia – the winners and losers

Regional differences are important to consider as well. Figure 3.6 shows the situation in New South Wales, and again these patterns are broadly repeated in Victoria and Queensland. I suspect they represent the situation on other states, as to differences between the capital cities and regional areas.

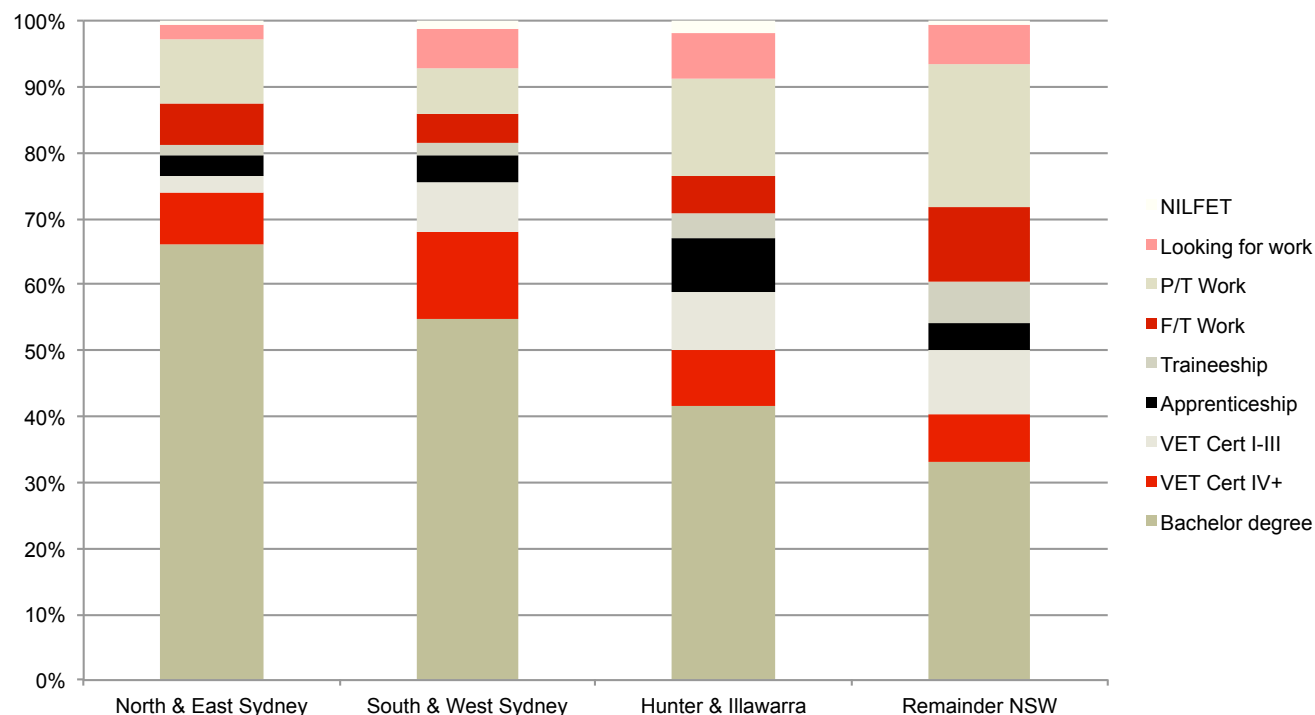


Figure 3.6

Destinations of Year 12 completers in New South Wales, 2013, by region

Source: Polesel et al. (2013)

Sydney school students are much more likely to go to university, a trend that declines among those in near regional centres in the Hunter and Illawarra north and south of the capital, and drops again for the remote areas of the state. These surveys consistently show that school completers living in the metropolitan areas such as Sydney, Brisbane and Melbourne are more likely to enter higher education than those in the regional and rural locations in those states.

Transitions from school in Australia – the winners and losers

On the other hand, school completers from regional areas are much more likely to enter the labour market without further education or training and, consequently, they are more likely to be unemployed, underemployed or in part-time work. We found in New South Wales that this regional impact is significant even if we control for socio-economic status. This matter really underlines the vulnerability of regional youth, and raises issues of access to higher education that we have not addressed in this country.

The surveys consistently show a strong link between the socio-economic status of students and their destination. They show that the proportion of Year 12 completers entering higher education increases as the level of socio-economic status increases. The transition to other destinations also tends to increase as the level of socio-economic status decreases. This finding means that students in areas of relative socio-economic disadvantage are more likely to enter the labour market without further education or training. The numbers of school leavers working full time, working part time or unemployed rises as their socio-economic status falls. This finding suggests that much smaller proportions of Year 12 completers from the lowest SES quartile enter higher education and relatively greater proportions of this same group will be unemployed or not in education or training or the labour force. Again these patterns are consistent over the years and across the states, Figure 3.7 summarising the findings for Victoria.

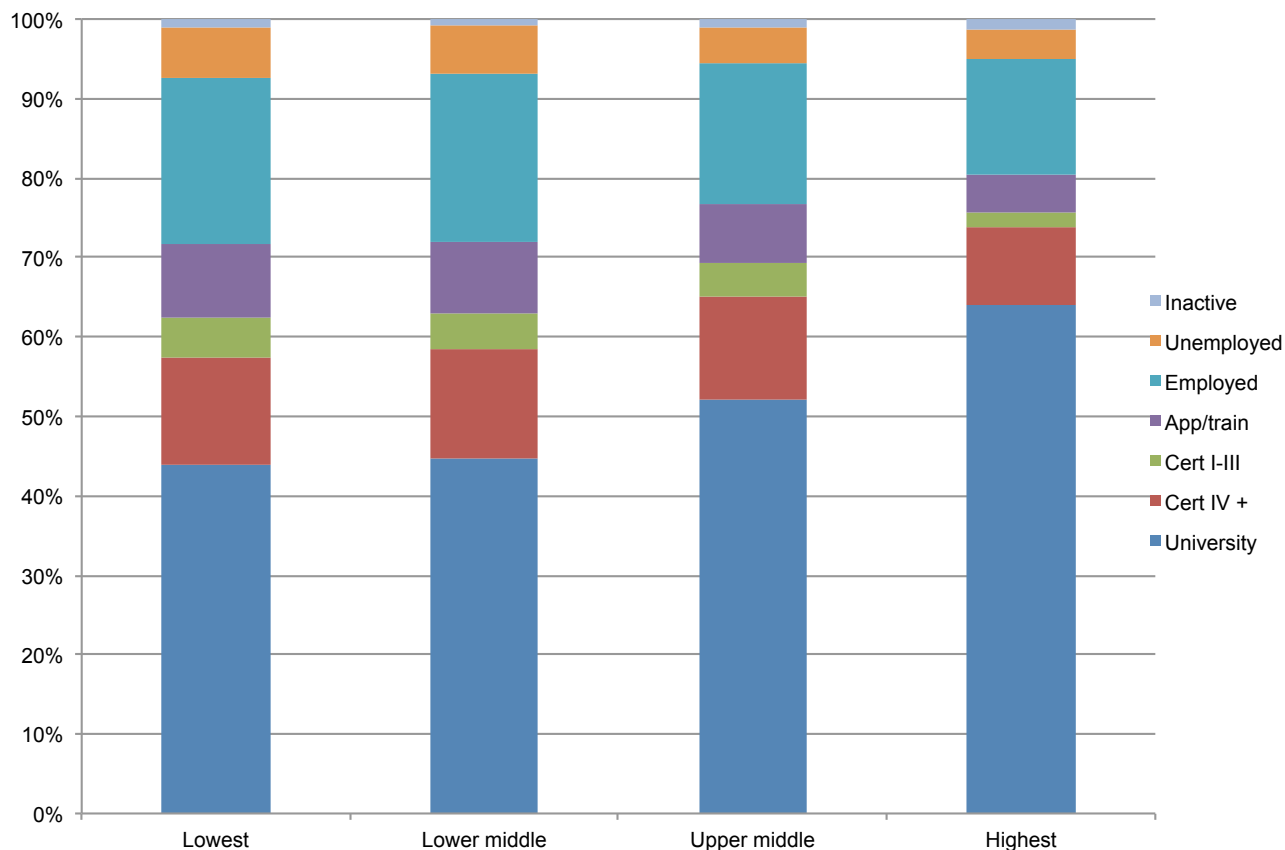


Figure 3.7

Main destinations by socio-economic status, Victoria, 2013

Source: DEECD (2013)

Transitions from school in Australia – the winners and losers

So what about those who enter the labour market with no further education or training; who might be typified as a precariat sub-population. The effectiveness of this transition from school to adult pursuits partly depends on the nature of employment, the hours worked, and the conditions of employment, among other factors. Findings suggest that only 55 per cent of males in this category are working over 30 hours and only 43 per cent of females are working over 30 hours (Figure 3.8). Again these patterns are consistent across Australia. The proportions of young people in part-time work are increasing each year in these surveys. Also consistent is the finding that females are more likely to be working part-time. Overall, approximately two-thirds of those in the labour market are working part-time or are looking for work.

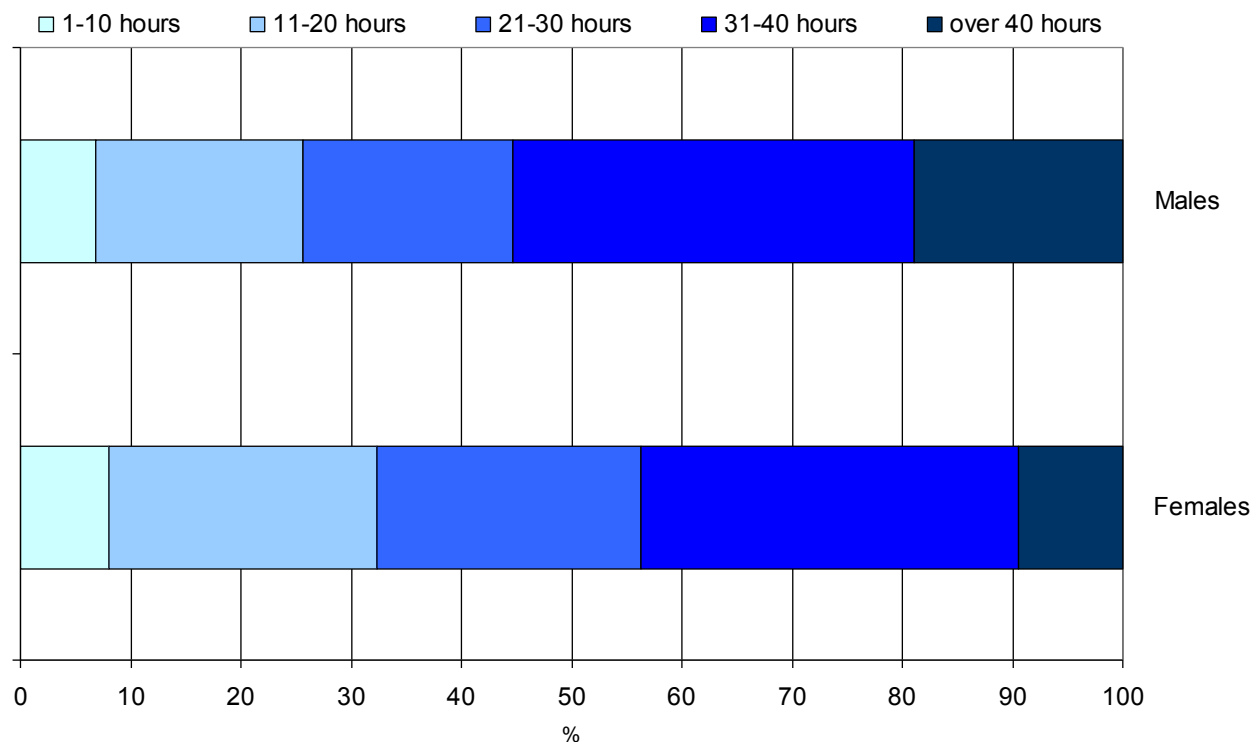


Figure 3.8
Hours worked by Year 12 completers
not in education or training,
by sex, Victoria, 2013. Source: DEECD (2013)

Transitions from school in Australia – the winners and losers

Figure 3.9 suggests that those who are working are doing so in predominantly low-skilled and low-paid casual jobs in personal services, hospitality and sales, and mostly in a part-time capacity. What is especially concerning is that these are exactly the same jobs being taken by university students to get them through their studies. So school completers are competing with university students and even with school students for these same low paid jobs, because that is all the labour market offers.

The role of curriculum in these circumstances is worth noting. If we are concerned regarding the transitions of those entering the labour market directly, we might legitimately ask whether our school-based vocational programs make a difference. The answer is both yes and no. If we consider the New South Wales data (and again it is not so different from what we find in Victoria and Queensland), we can see significant differences between the VET students and the rest (Figure 3.10).

MAIN ACTIVITY	COUNT	% FEMALES	% MALES
Sales Assistants	1010	21.3	12.9
Waiters	581	15.4	3.8
Checkout Operators & Cashiers	579	13.2	6.2
Counters Hands at Food Outlets	428	8.4	6.2
Store-persons	352	3.8	8.6
Kitchen hands	267	3.1	6.2
Receptionists	207	6.0	0.8
Factory Workers and Packers	201	1.6	5.5
Bar Attendants	184	3.0	3.4
General Labourers	183	0.4	6.2
Sport and Fitness	175	2.2	3.9

Figure 3.9

Main occupations of Year 12 completers
not in education or training, by sex, Victoria,
2012 (Department of Education & Training Victoria 2012)

Transitions from school in Australia – the winners and losers

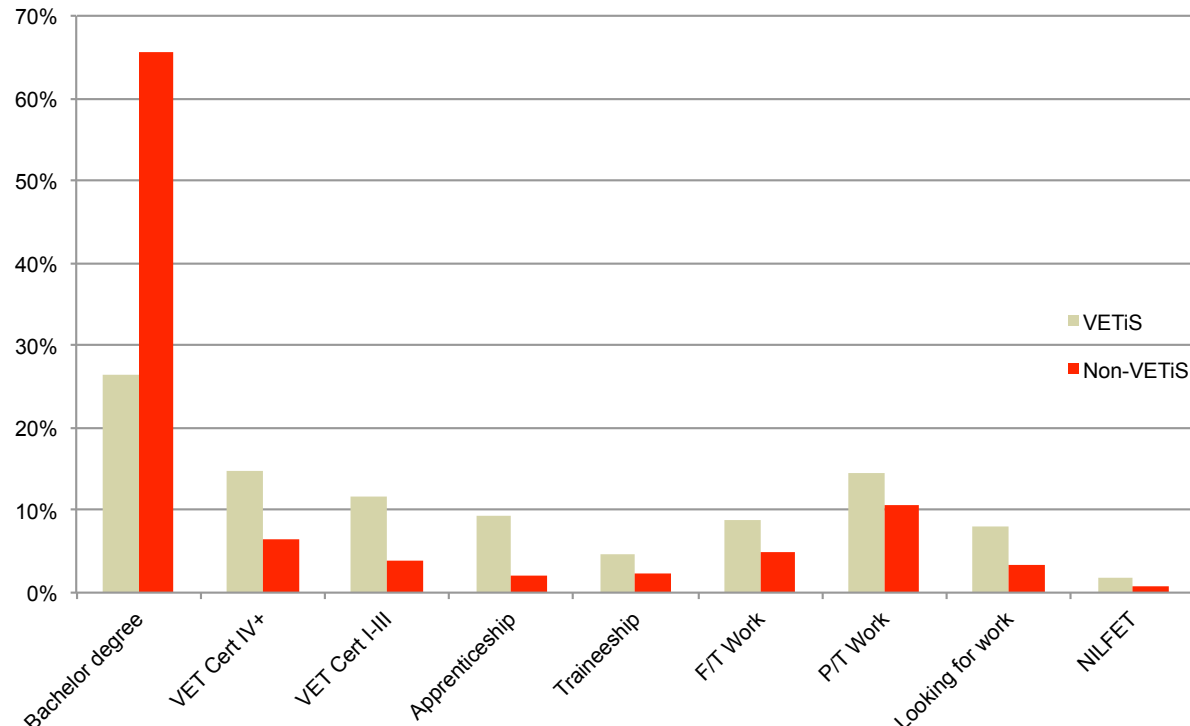


Figure 3.10

Destinations of Year 12 completers, New South Wales, 2013 by participation in vocational education and training in schools (VETiS)

Source: Polesel et al. (2013)

The VET students are less likely to go to university: not surprising, we know they have a profile that is not oriented to strictly academic achievement. Pleasingly they are more likely to go into post-school VET programs and apprenticeships and traineeships. But even with the higher numbers going into all those VET options, there are more VET students entering the labour market. And we have seen what that means—mainly part-time, low skilled work. Do the VET students get different jobs? No they are the same and despite their VET studies, those students are still more likely to be unemployed or working part-time.

Transitions from school in Australia – the winners and losers

And finally let's consider the destinations of the early school leavers (Figure 3.11). The outcomes are troublesome and especially unsatisfactory for girls, who have access to far fewer apprenticeships than boys. The particular survey from which these data are drawn also only captures 40 per cent of the cohort, the rest being, for example, uncontactable—which may suggest that the real outcomes are probably more precarious still.

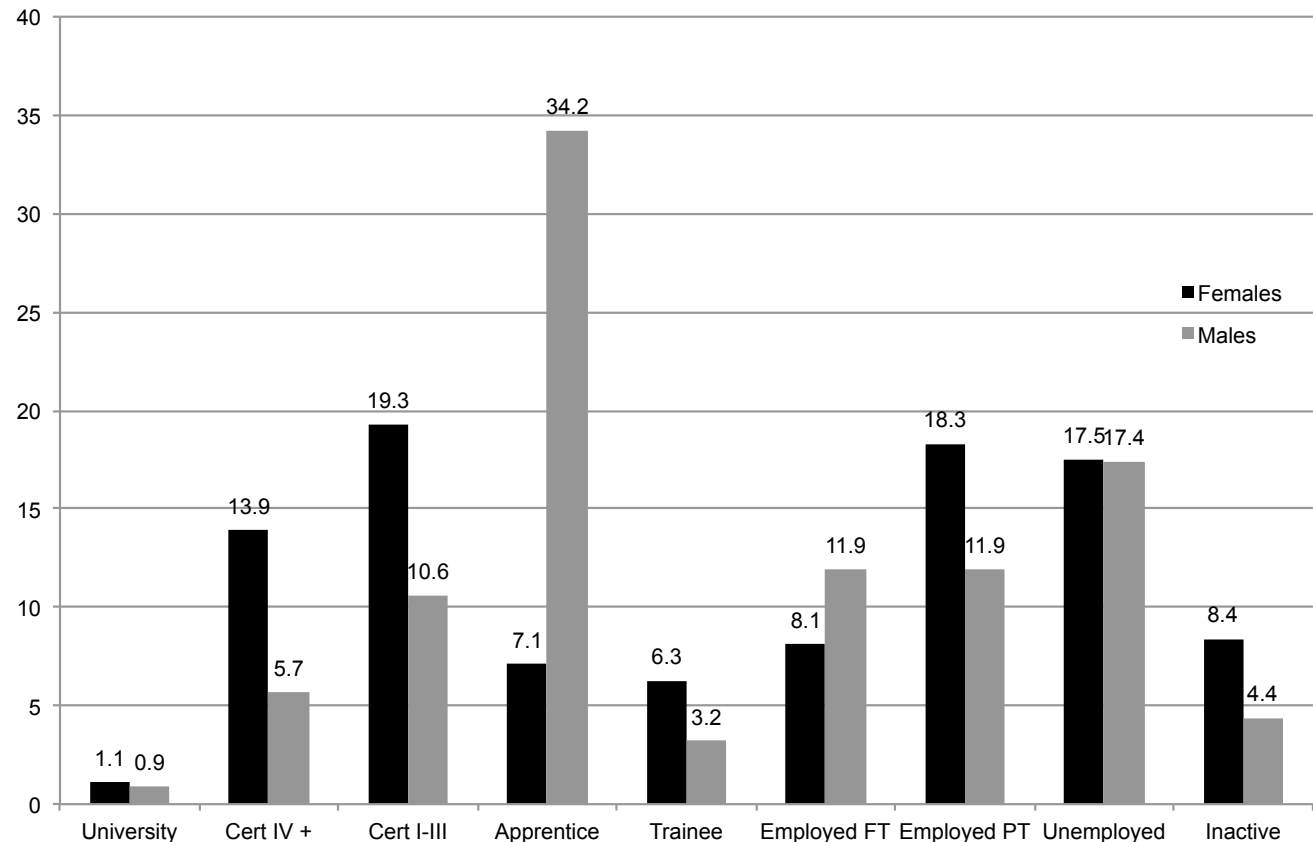


Figure 3.11
Destinations of early leavers, Victoria, 2013
Source: DEECD (2013)

So to finish, these then are the patterns evident across significant parts of Australia. About 80 per cent of young people now complete secondary school across the country, but of those, only about half will go to university. This finding raises an important question. How effective are the options we are providing for the remainder, the 60 per cent or so who do not go to higher education, some of whom do not even complete secondary school? This mixed cohort is in the majority.

Transitions from school in Australia – the winners and losers

I would suggest that the culture of our secondary schools is still one which places university entry above all other goals, to the detriment of other pathways.

A number of strategies could be considered to address these problems.

Firstly, there is a need to address the status of VET that is offered in schools, by prioritising the allocation of staff and resources in our secondary school systems.

There is also a need to provide more coherent vocational programs which engage industry and business in the provision of training places and which provide clearly signposted pathways to further study.

Careers advice and guidance must reflect the needs of all young people, not just those going to university.

And finally, alternatives to our mainstream secondary schools need to be carefully considered, designed and resourced to provide the range of alternatives required by the diverse users of school.

At the risk of offending my audience, I would say that these issues point clearly to the role of universities and the continued control exercised by the universities over our secondary school curricula, but it is a two-way street. School leaders too are reluctant to take risks and provide alternatives to the pathway paved in gold which leads to university. Until we can think about transitions in more inclusive terms and consider pathways other than university, we will continue to do 60 per cent of our school leavers a disservice.



4

Making connections: research,
teacher education and
educational improvement



Making connections: research, teacher education and educational improvement

Ian Menter



Introduction

In this paper I seek to explore the relationships between teacher education, research, and educational improvement, connecting directly with at least two of the three priorities for the Peter Underwood Centre for Educational Attainment—research and workforce development. My exploration is based on a deep commitment to a research-based approach to teacher education, indeed on my commitment to teaching as an enquiry-based profession and also to the improvement of educational experiences for all learners. This is not therefore a dispassionate perspective. It is one based on many years working in schools and universities, and working with other teachers and researchers. However, even if it is not dispassionate, I will nevertheless seek to provide the evidence to support the case I am developing, in the true spirit of critical enquiry.

The other key point to be made by way of introduction is that while education systems may still be largely based around nation states or states within nations, there is nevertheless an increasingly global element in education policy processes and to some extent that is also echoed in educational practices (Rizvi & Lingard, 2010). Some of the most visible aspects of these developments may be associated with the attempts at international comparisons in educational achievement, such as PISA, TIMSS and PIRLS. One of the most perceptive accounts of these developments has been offered by Pasi Sahlberg (2011), who continues to be somewhat mystified by the success of Finland in these league tables, but is able to offer some partial explanations against the backdrop of his wonderfully suggestive acronym, the GERM. The Global Education Reform Movement is the process which has led to the following characteristics (or symptoms) being seen in many education contexts around the world:

- standardization;
- increased focus on core subjects;
- prescribed curriculum;
- transfer of models from the corporate world; and
- high-stakes accountability policies (pp.99–106).

It becomes clear in Sahlberg's book, that Finland's success is built against a very different background from many other developed nations, including England or even the wider UK, which is a much more stratified society than Finland, with many institutions of privilege for the privileged.

Teaching and teachers

The overall theme for this symposium is 'education underpinning social and economic transformation'. Teachers have a major role to play in supporting these aspirations for the transformative effects of education. However, from the outset we must remember the clear caveat stated by Basil Bernstein (1970) more than 40 years ago—education cannot compensate for society. Nevertheless as others have pointed out, 'School Matters' (Mortimore et al., 1988) and 'Teachers Matter' (Day et al., 2007). It is now a truth almost universally acknowledged that the single biggest element in educational success and indeed in educational improvement is the quality of teaching and of teachers. That is the conclusion of the McKinsey Reports (Barber & Mourshed, 2007) and it is also what emerges from the TALIS studies (OECD, 2009).

In England, we had a White Paper as long ago as 1983 called 'The Quality of Teaching' (DES, 1983). In 2010, we had another White Paper called 'The Importance of Teaching' (DfE, 2010)—I will be returning to that later on. The recognition that teaching is important has led to some greater efforts to identify what it is that may make teachers more or less successful. But of course there is a rather important prior question that may get in the way of answering this directly. That is—what do we mean by 'educational success' or indeed by 'good teaching'?

It is implied in the title of the symposium that the measure of a successful education system is to be located in indicators of social and economic development. But few would deny the simultaneous importance of cultural and intellectual development (see Nussbaum, 2012). Indeed, in these times of 'the knowledge economy' much of the key debate concerns how these different purposes of education relate to each other and should be balanced. One of the key British thinkers on the development of 20th century democracy, Raymond Williams, suggested that you could understand the development of education in Britain as a continuing struggle between the interests of three influential forces within society:

- the old humanists;
- the public educators; and
- the industrial trainers (Williams, 1961/2011).

In so far as these social forces coincide with, respectively, the cultural, the social and the economic purposes of education, we can still see these tensions being played out, albeit on a more global scale, in the education systems of developed nations today.

So, it seems logical to expect that the shape and form of teacher education will be deeply influenced by the agreed purposes of education. If we do wish to see education, at least in some significant part, as an engine of social and economic transformation, then what kinds of teachers do we want and how should we prepare them?

Many of the debates about the form and structure of teacher education programmes have centred on questions about the nature of teaching and what forms of knowledge, skills and experience are required in order to fulfil this definition. In a review of literature of teacher education in the 21st century, a team of us at the University of Glasgow (Menter et al., 2010) suggested that it is possible to identify four paradigms of teaching, each of which will lead to rather different approaches to the formulation of pre-entry programmes:

- the effective teacher – with an emphasis on technical skills;
- the reflective teacher – with an emphasis on values and review;
- the enquiring teacher – with the adoption of a research orientation; and
- the transformative teacher – with the adoption of a 'change agency' approach.

Moving from the first to the fourth, each paradigm incorporates those with a lower number but builds upon it. These might be seen as positions on a spectrum of professionalism which, using terminology developed in the 1970s by Hoyle (1974) moves from 'restricted' professionalism to 'extended' professionalism.

At the restricted/effective end of the spectrum, there is a view that the best place to learn to teach is alongside an experienced and successful teacher, through an apprenticeship model; this is sometimes depicted as a 'craft' view of teaching. The skills of teaching are learned by observation and by imitation, and in turn by being observed and receiving feedback from the experienced teacher. On this model, knowledge of the subject content of the teaching is assumed to be present, in other words the trainee is already well versed in the subject and all they require is enthusiasm and an ability to learn from observation and feedback. If this is a limited view of becoming a teacher for a secondary school teacher of a particular subject, it is even more challenging for the elementary or primary school teacher whose subject knowledge will need to range right across the school curriculum. This position has been well exemplified by a recent Secretary of State for Education in England, Michael Gove, in his foreword to the Government White Paper mentioned above: "Teaching is a craft and it is best learnt as an apprentice observing a master craftsman or woman. Watching others, and being rigorously observed yourself as you develop, is the best route to acquiring mastery in the classroom" (DfE, 2010).

We shall return to this view shortly.

But if we are indeed looking to education leading transformation, we surely need a more ambitious view of teaching and teacher education. To what extent one needs to adopt a transformative model of teaching in order to promote education as a transformative force is a key question for discussion at this symposium.

The reform of teacher education

In his account of the lessons from Finland, Sahlberg (2011) is in no doubt that the standing of the teaching profession, the commitment to high quality teacher education and continuing development, and the reasonable remuneration of teachers are among the factors likely to have positive influence—even if he is no more able than the rest of us to demonstrate more than a correlation between these features. As we shall see, actually demonstrating a causal link, let alone a full explanation of this relationship, continues to be a very significant challenge (Cochran-Smith & Zeichner, 2005; Cochran-Smith et al., 2008).

I have often made the argument that in order to understand a particular teacher education system as it currently exists it is necessary to consider the history, culture and politics of that society. I would now add very wholeheartedly that the economy of the society is also an important factor in shaping the system. So, if we need to look at all four of these to understand a teacher education system, we may also expect the system to have an influence on the future economy, culture and politics of that society. In other words there is a dynamic relationship between teacher education and society. Teacher education is both shaped by and also influences the society. Indeed that is why a maxim that is important to me, especially in undertaking comparative work in teacher education research, is 'by their teacher education ye shall know them'.

For, by reviewing and analysing a nation's teacher education system we are appraising what it is that teachers should know, what they should be able to do and how they should be disposed, in order to help in the formation of the future adult citizens of the society, in perhaps 10 to 20 years' time. Teacher education may be taken to be highly symbolic of how a society sees its future and is therefore highly indicative of its underlying values. Perhaps it is a realisation of this that has turned teacher education into such a centre of political interest in the past 20 to 30 years in many countries.

It should therefore be no surprise that across the globe we have seen increasing numbers of reviews, reports and reforms of teacher education over recent years (see Darling-Hammond & Lieberman, 2012; Townsend, 2011). In my travels around the UK, as well as in the USA, Austria, Norway, Turkey and recently Russia, there are major reforms going on in teacher education. And of course the same is true here in Australia, of which more towards the end of this paper.

Making connections: research, teacher education and educational improvement



The big questions in teacher education that are both enduring—that is, they have historical manifestations—and highly contemporary, include:

- the background and experience of recruits into teaching;
- the relationship between theory and practice;
- the nature of professional knowledge;
- the sites of learning;
- the respective contributions of the school and of the university;
- curriculum and assessment within teacher education;
- the continuum of professional learning; and
- assessing the effectiveness of teacher education (see Menter, 2015).

It may be useful here to offer a brief summary of what has been happening in the UK to give a sense of how some of these major issues have been debated. The year 2010 was very interesting for us. There was a general election held in May, which led to the creation of the Coalition Government, a partnership between the Conservatives and the Liberal Democrats. Michael Gove was appointed by Prime Minister David Cameron as Secretary of State for Education. Remember however that Gove's jurisdiction for education was not UK wide, it covers only England. Since the devolutions of the late 1990s, Scotland, Wales and Northern Ireland had full responsibility for education policy including teacher education policy.

In England then, one of the first White Papers that the Coalition Government produced was 'The Importance of Teaching' (DfE, 2010); this set out a clear view of the nature of teaching and indeed of teacher education, as demonstrated in these extracts.

We do not have a strong enough focus on what is proven to be the most effective practice in teacher education and development. We know that teachers learn best from other professionals and that an 'open classroom' culture is vital: observing teaching and being observed, having the opportunity to plan, prepare, reflect and teach with other teachers'.

[We will] reform initial teacher training so that more training is on the job, and it focuses on key teaching skills including teaching early reading and mathematics, managing behaviour and responding to pupils' Special Educational Needs.

We thus see Mr Gove fully supporting a simple craft view of teaching and an apprenticeship model of teacher education—actually he persisted in calling it teacher training—and we now see the dominance of his 'School Direct' approach to teacher education. This school-led model has promoted a small number of universities to withdraw altogether from teacher education, and it has given rise to a number of others seriously questioning whether it is worth their while to maintain their involvement.

Making connections: research, teacher education and educational improvement

However, only two months later, a report was published in Edinburgh called 'Teaching Scotland's Future' (Donaldson, 2010). This report had been written by a leading educational professional rather than by a politician, namely the recently retired Chief Inspector of Education, Graham Donaldson. This set out a very different view of teaching and teacher education when compared to Michael Gove's model in England. Donaldson emphasised:

- teachers "as reflective, accomplished and enquiring professionals who have the capacity to engage fully with the complexities of education and to be key actors in shaping and leading educational change" (p.4);
- teaching as a profession based on high quality provision;
- the key role that universities have to offer in the development of teachers;
- teaching as a complex and challenging occupation which requires a strong and sophisticated professional development framework throughout every stage of the career; and
- the link between teaching and leadership—good quality education is based on both, throughout the career.

Not surprisingly, in the light of these values, Donaldson not only endorsed the importance of higher education and research in teacher education, he was gently critical that universities were not even more broadly engaged in teacher education.

Therefore we have seen in the last five years somewhat different policy trajectories in the teacher education being offered in these two component nations of the United Kingdom (see Hulme & Menter, 2011 or Menter, 2014, for more detailed discussion).

I should note also that processes of review have been underway in Northern Ireland (Sahlberg, Munn & Furlong, 2012) and Wales (Furlong, 2015) as well and these have generally been aligned towards the Scottish view of teaching and teacher education, thus making England sometimes seem something of an outlier within the UK (see Teacher Education Group, forthcoming). However, the ideas for school-based teacher education are not only in England; we see similar developments in many US states.

TEACHING SCOTLAND'S FUTURE

Report of a review of teacher education in Scotland

Graham Donaldson
December 2010

It came as something of a shock to many of us who had been working in university-based teacher education for a number of years that the importance of the links between higher education and teacher education were not widely understood.

The BERA–RSA Inquiry

It was because of concern about the potential impacts on the educational research infrastructure of government policies concerning teacher education across the four nations of the UK, that BERA decided in 2012 to set up an inquiry into the relationship between teacher education and research. It came as something of a shock to many of us who had been working in university-based teacher education for a number of years that the importance of the links between higher education and teacher education were not widely understood. Indeed retrospectively and in spite of many years of pamphleteering and campaigning against university-based teacher education by right wing think tanks and their associates, we can see now that there had been a failure to resist or respond positively to defend the sector (Childs & Menter, 2013). But yet, the evidence to demonstrate the importance of HE and research in teaching was not immediately to hand. There were no studies that convincingly demonstrated that educational outcomes were improved through teacher education with high levels of university input or indeed of research input.

Thus the Inquiry, then established in a partnership with the Royal Society for the Arts (RSA) set out to answer the following questions, more or less *ab initio*:

1. What is the role of research within initial teacher education (ITE) and how does it contribute to programmes of continuing professional development and learning (CPDL)?
2. What is the impact of research-informed teacher education on the quality of teaching and how far does research-based teaching improve learning outcomes for students?
3. How far does current provision across the UK meet the requirements of research-informed teacher education and research-based teaching? What are the barriers to creating research-rich environments at a school and system level and how may these be overcome?

A total of seven papers was commissioned from a range of leading scholars (BERA–RSA, 2014a). A review of more and less successful education systems and their approach to teacher education was carried out by Maria Teresa Tatto (2014) and she found that there was at least *prima facie* evidence of a positive linkage between enquiry oriented approaches to teacher education and successful outcomes—she looked at Finland, Singapore, the USA and Chile.

Making connections: research, teacher education and educational improvement

...models which sought to integrate theoretical and experiential learning in a systematic way provided a firm basis for teachers' continuing professional learning and for the creation of teachers who could work in a range of contexts and situations.

Two of my colleagues at Oxford, Katharine Burn and Trevor Mutton (2014), were asked to look at research-based clinical practice models of initial teacher education. They looked at approaches in Scotland, Australia, the Netherlands and elsewhere, as well as our own Oxford internship scheme, and found that models which sought to integrate theoretical and experiential learning in a systematic way provided a firm basis for teachers' continuing professional learning and for the creation of teachers who could work in a range of contexts and situations.

Overall the Inquiry came to the following conclusions (BERA-RSA, 2014b):

- Internationally, enquiry-based (or 'research-rich') school and college environments are the hallmark of high performing education systems.
- To be at their most effective, teachers and teacher educators need to engage with research and enquiry; this means keeping up-to-date with the latest developments in their academic subject or subjects and with developments in the discipline of education.
- Teachers and teacher educators need to be equipped to engage in enquiry-oriented practice; this means having the capacity, motivation, confidence and opportunity to do so.
- A focus on enquiry-based practice needs to be sustained during initial teacher education programmes and throughout teachers' professional careers ... [this needs to be] embedded within the lives of schools or colleges and become the normal way of teaching and learning, rather than the exception—[that is, teachers should be equipped with 'research literacy'].

The report made recommendations for each of the four UK jurisdictions but also some more general recommendations, as follows:

- With regard to both initial teacher education and teachers' continuing professional development, there are pockets of excellent practice across the UK but good practice is inconsistent and insufficiently shared. Drawing on the evidence, the inquiry concludes that amongst policymakers and practitioners there is considerable potential for greater dialogue than currently takes place, as there is between teachers, teacher-researchers and the wider research community.
- Everybody in a leadership position—in the policy community, in university departments of education, at school or college level or in key agencies within the educational infrastructure—has a responsibility to support the creation of the sort of research-rich organisational cultures in which these outcomes, for both learners and teachers, can be achieved.

Making connections: research, teacher education and educational improvement

Now what about

Australia and Tasmania?

In July last year I was speaking at the annual conference of the Australian Teacher Education Association, held in Sydney, and I became aware of the moves that were developing here to look at the organisation and delivery of teacher education. To be frank, there was considerable anxiety at that time that the outcomes of the processes of review established by Minister Pyne might bear a considerable similarity to the developments in England. My reading of the report (TEMAG, 2014), which came out seven or eight months ago, is that this has not in fact been the case.

The key issues for teacher education (as delineated above) are all in there and the awareness of the political significance of teacher education is clearly flagged, as well as the influence of the GERM! The report is not at all uncritical of current practice however, and suggests that there are some serious weaknesses that must be urgently addressed. On the key issue of who should be responsible for high quality teacher education, the report is clear:

Higher education providers and the teaching profession must together embrace the opportunity to full participate in a reformed, integrated system of initial teacher education. This participation will be essential in embedding the reforms necessary to deliver high-quality teaching in every Australian school (p. xi).

The report identifies four fundamental principles on which the group's deliberations are based: integration; assurance; evidence; transparency. Five proposals then follow from these principles:

1. a strengthened national quality assurance process;
2. sophisticated and rigorous selection for entry into teaching;
3. integration of theory and practice;
4. robust assurance of classroom readiness; and
5. national research and capability.

On the third of these, there is talk of structured and mutually beneficial partnerships between schools and higher education in order to provide the necessary 'real opportunities for pre-service teachers to integrate theory and practice'.

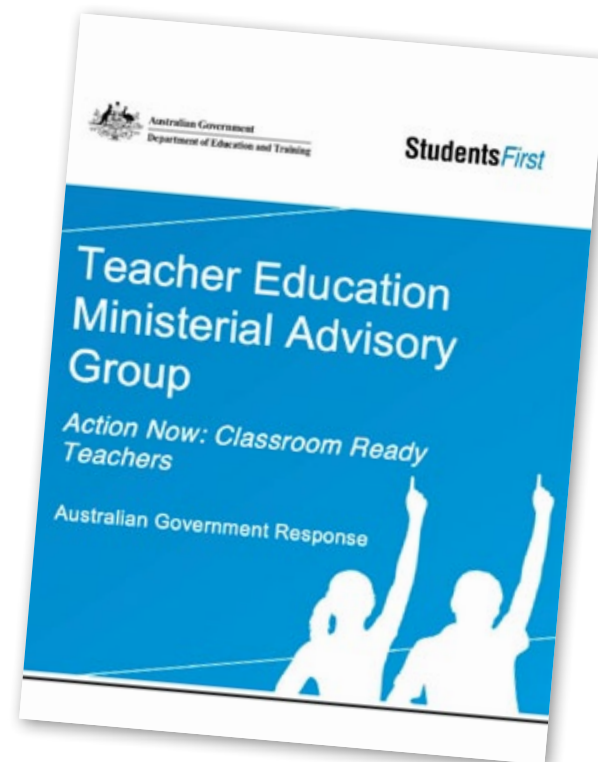
And on point 5, the report elaborates:

Better evidence of the effectiveness of initial teacher education in the Australian context is needed to inform innovative program design and delivery, and the continuing growth of teaching as a profession (p. xii).

Not only that, but there is a clear recommendation as to where the leadership for this research should lie:

The AITSL should expand its functions to include provision of leadership in national research on teacher education effectiveness, to ensure that the Australian teaching profession is able to continually improve its practice.

This is profoundly encouraging. Of course much will depend on the level of political support that the recommendations get—and we know politicians change and move on. However, what has been provided here is a clear evidence-based report that offers an overall strategy for transformation and improvement. I trust it will be helpful across Australia, not least in Tasmania.



Making connections: research, teacher education and educational improvement

Trust, respect, conditions and salary are all important and can play a part in the recruitment and retention of teachers who can make a big contribution and improve young people's life chances.

Conclusion

As we see in the TEMAG report, it remains crucially important to enquire into the relationship between educational outcomes and the nature of teacher education and professional development; this remains a greatly under-researched and under-explored aspect of education. We may have some *prima facie* evidence now that enquiry-oriented teaching is strongly associated with more successful education systems, but we still do not really understand why that is.

Trust, respect, conditions and salary are all important and can play a part in the recruitment and retention of teachers who can make a big contribution and improve young people's life chances. The standing of the profession is likely to improve as the research and practice communities move closer together. Research literacy should be an entitlement for all teachers and should be developed throughout their careers. In the same way that other professions develop their expertise, this is likely to be best achieved through ever closer working with researchers and university-based colleagues who can ask the right questions and support teachers in identifying answers.

Making connections in the way suggested in the TEMAG report is crucial to positive development. We see here an opportunity to enrich and indeed embed the relationships between policy, practice and research. We also see a commitment to critical reasoning as an underlying principle for teaching and for education, a commitment that is endangered in England, as demonstrated by Furlong's (2014) recent analysis.

It is very reassuring to see examples of researchers and policymakers seeking to learn from each other without blindly imitating. Education systems and teacher education systems each have their own histories and trajectories and each seeks to meet the needs of a distinctive culture and society at particular points in time. So the connections are important—global connections and internal connections—in all three overlapping worlds of policy, practice and research. Through such connections we can seriously seek to transform our world—both locally and internationally—through education.

5

From rhetoric to reality: creating a culture of success in secondary schools³



³ Please note that, while intellectual copyright belongs to Rooty High School and the New South Wales Department of Education, the commentary is my own.

From rhetoric to reality: creating a culture of success in secondary schools

Christine Cawsey AM

Introduction

In any conversation about the wide range of performance of secondary schools in Australia the first question that is usually asked is: What do secondary schools need to do to raise aspirations, participation and attainment? The assumption in this question is that low expectations and low achievement are the responsibility of the school, rather than the responsibility of governments, educational systems, the community and schools. By contrast, for principals and schools facing community cultures of low expectations, poor participation and disengagement, the challenge is how to define and then shift the school culture to one of success.

According to an Australian Council of Social Services report released on 2 July 2015, one in seven Australian children lives in poverty, and in Sydney it is over 15 per cent. Almost all these children attend government schools and, on any measure (health, employment, income, education), they have poorer outcomes in the Australian education system than they would have in comparable systems like Canada.

This presentation discusses how principals and school teams make choices in their planning, change platforms and strategies to create a culture of success, often in the face of significant funding, social and political inequity.

Facebook gets most likes from parents

FACEBOOK is the way parents want to link with schools, a trailblazing principal has told a Hobart conference.

Christine Cawsey AM, principal of western Sydney's Rooty Hill High School, was a keynote speaker yesterday at the University of Tasmania Education Transformation symposium.

"What we know about this generation of parents, even the most disadvantaged, is that they are connected to social media," she said.

"They find Facebook easy



Christine Cawsey

and want to link with the school in that way.

"Mostly posts are positive and, occasionally, we get the hard questions. But that gives the school an opportunity to

respond and we've made a commitment to be totally transparent."

Ms Cawsey said the advent of social media marked a shift in the way the school community communicated — it also had a Twitter and Instagram profile.

"We'll put up everything, dealing with everything from everyday reminders to serious policy," she said.

The death of a student had people wanting to post on Facebook regarding the circumstances.

"It gave me an opportunity

as principal to write a short item on Facebook about protective behaviours, about keeping an eye out for your kids and your kids' friends, to make sure they are OK."

Ms Cawsey said the school had done a deal with parents this year. If they bought their child a Chromebook (laptop) the school would waive subject fees for the computer unit.

"We had a 90 per cent take-up in Year 7, and 80 per cent from Years 7 to 10 — much more than we thought," she said.

The Prevailing Rhetoric

In the last few months I have been increasingly irritated by the rhetoric and spin surrounding secondary schools and, secondary public schools in particular. In preparing this presentation, a quick review of headlines from the popular press viewed on Google did nothing to lower my blood pressure and a lot to increase my cynicism about the motives behind the current commentary on education—especially public education—in this country (Figure 5.1).

From rhetoric to reality: creating a culture of success in secondary schools

We can learn from a man who has class - The Daily Telegraph

www.dailytelegraph.com.au/news/.../story-fni0cw15-1226817970247

Feb 5, 2014 - Among his and Queensland academic Ken Wiltshire's tasks is to decide whether the three priorities of the new curriculum - sustainability, ...

'kumbaya' with progressive, new-age fads - The Daily ...

www.dailytelegraph.com.au/news/.../story-fnnp1181-1227406561344

Jun 20, 2015 - The Saturday Telegraph has learnt more than 80 teachers in government ... Professor Wiltshire said he was dismayed by some of the new-age teaching ... Professor Ken Wiltshire criticised "new age" teaching methods.

Report reveals where schools are failing kids - The Daily ...

www.dailytelegraph.com.au/...are.../story-fni0cw15-1227087425436

Oct 12, 2014 - ... a pity, because the document, revealed today in The Sunday Telegraph, ... penned with Professor Kenneth Wiltshire, makes some measured ...

Children to lose creative time in classroom if Ken Wiltshire ...

www.couriermail.com.au/...ken-wiltshire.../story-fnihsrf2-1227091820264

Oct 16, 2014 - Children to lose creative time in classroom if Ken Wiltshire and Kevin Donnelly recommendations adopted Although female characters in TV dramas can

Children should be taught consumer and financial literacy ...

www.dailytelegraph.com.au/.../story-fni0cx12-1226875215624

Apr 5, 2014 - In a submission obtained by The Daily Telegraph, ASIC says ... and public policy professor Ken Wiltshire and commentator Kevin Donnelly.

Miranda Devine: Orwell would weep at the demonisation of ...

www.dailytelegraph.com.au/.../story-fni0cw15-1227124299657

Nov 16, 2014 - dailytelegraph.com.au Along with review co-author Kevin Donnelly and four other subject experts deemed "conservative", he has been ...

Don't expel God from our children's classrooms - The Daily ...

www.dailytelegraph.com.au/news/.../story-fni0cw15-1226839840326

Feb 28, 2014 - Kevin Donnelly, a leading conservative education commentator, says there should be more religion, not less, in our public schools. He wants to ...

Donnelly and Wiltshire offer 'expert' advice on how our ...

www.aare.edu.au/blog/?p=1113

17 hours ago - Dr Kevin Donnelly is quoted as saying, "I call it 'edutainment' about the Daily Telegraph article, Dr Donnelly wrote "For what it is worth ...

Kevin Donnelly and Alan Jones discuss the decline in ...

australianconservative.com/.../kevin-donnelly-and-alan-jones-discuss-dec...

Aug 23, 2013 - Sydney broadcaster Alan Jones discussed with Dr Kevin Donnelly on Thursday the implications of a new report by the Australian Council for ...

My School 2015 website release - Christopher Pyne

<https://www.pyneonline.com.au/media/.../my-school-2015-website-releas...>

Mar 5, 2015 - Minister for Education and Training, the Hon Christopher Pyne MP has welcomed the My School 2015 website release, which includes ...

MySchool improvements better for parents and schools ...

<https://ministers.education.gov.au/pyne/myschool-improvements-better-p...>

Mar 22, 2015 - Minister for Education and Training, the Hon Christopher Pyne MP, has announced planned improvements to the My School website that will ...

Tony Abbott's school reform paper proposes cutting federal ...

www.smh.com.au/.../tony-abbotts-school-reform-paper-proposes-cutting-fe...

Jun 22, 2015 - 'Wacky' plan to means test public schools slammed ... Education Minister Christopher Pyne says the government has a particular responsibility for All about increasing the GST would be my guess, the states made me do it.

Figure 5.1

Education news headings. Source: Google

From rhetoric to reality: creating a culture of success in secondary schools

Let me share some of the common and recurring myths about secondary schools:

- The best-placed people to determine curriculum in this country are men who have not been in a classroom in a school for up to 40 years.
- The decline in Australia's school education can be traced back to the 1970s when large numbers of women entered teaching.
- The decline in Australian school education can be traced back to the university education of the Baby Boomers—the 'Flower Power' generation.
- The decline in PISA results can be linked to increased funding, especially for public schools.
- Progressive education (that is, an education that goes beyond literacy and numeracy) is a major cause of the decline in Australian school education.

The commentators and, in some cases, major policy makers usually have a solution about what 'we' (that is the rest of us) should do:

- We should test undergraduates to make sure they are literate and numerate before they enter teaching.
- We should import micro teaching approaches, direct instruction, school-evaluation tools and testing regimes—generally from publishers based in countries that perform even more poorly than we do on PISA tests.
- We should create independent (autonomous) public schools and/or academies because they will address poor participation, engagement and attainment better than government school systems do now.

There is little or no research to support the efficacy of any of these solutions above any others.

Some emerging realities for secondary schools

To contrast the rhetoric, let me share three of my perceptions, informed by evidence within and beyond the school.

1. School teachers and principals have never been more expert and Australia is a world leader in standards based professional development.

I have been well placed to observe the quality of new teacher graduates entering the classroom as the principal of a school with 80 teaching staff, of whom 65 are in their first seven years of teaching (including four members of the executive staff). The Australian Professional Standards for Teachers are demanding, and require teachers to demonstrate deep knowledge and skills in understanding their students, translating curriculum, planning for learning against assessment, managing the classroom learning environment and contributing to the profession, school and community. As university staff know, the skills and discourses needed by students successfully completing university are increasingly complex, and demand that students leaving secondary schools and their teachers have a deep expertise in the learning demands of each subject.

2. Not all school communities are the same.

In his address to the ACEL conference in 2014, John Hattie said that 65 per cent of schools in Australia were among the best schools in the world. The ability of many parents to make a private economic decision to choose a secondary school for their children masks that fact that 35 per cent of schools meet the needs of communities where parents and, more critically, students have little or no choice. In a country as rich as Australia, the 'residualisation' of 35 per cent of our schools poses a significant future threat to our nation's economic and social wellbeing.

The elephant in the room in any conversation about transforming secondary school education is school funding—and, critically—needs-based funding. I am not going to go into that debate today except to say that, when students are starting secondary school three to five years behind the average for Australia, some schools are doing some very heavy lifting to reach key academic benchmarks. The common target of reaching state or national averages is a statistical furphy and shows how little many people remember from school about the definition of 'average'. If, for example, large numbers of students in western Sydney improve their performance, the average for the whole state moves up; schools cannot, and nor should they, be competing on those measures. I will return to this matter soon.

Is it any wonder that academics and school systems across the OECD are reflecting on how to teach students to be creative, entrepreneurial and resilient when experts are describing the complete transformation of the way we live and work?

We can no longer talk about preparing students for the 21st century—in 2015, it is already with us.

3. Rapid economic and social change and disruption are realities.

At the recent New South Wales Secondary Principals' Conference, several of the speakers challenged principals to pay much closer attention to the rapid economic and social disruption occurring globally and locally. As the March report of the Brotherhood of St Laurence showed, unemployment in 2014 was highest among young people. It is at its highest in regional and remote communities, those communities that are also over-represented in the numbers of students in the lowest ICSEA quartiles.

The emerging economy is predicted to be one with few traditional positions and one where work that is repetitive will be replaced by machines or by outsourcing to countries with cheaper labour forces. When even the work of lawyers and accountants can be replaced by scanners and sophisticated software, what we have done in schools in the past will not be enough to create success for our students in the future.

Is it any wonder that academics and school systems across the OECD are reflecting on how to teach students to be creative, entrepreneurial and resilient when experts are describing the complete transformation of the way we live and work? We can no longer talk about preparing students for the 21st century—in 2015, it is already with us.

In the foreword to *Educating Ruby – What our Children Really Need to Learn* (Claxton & Lucas 2015), Professor Tanya Byron writes: "As a clinical psychologist working in child and adolescent mental health I often meet children and young people who are struggling at school to such a degree that it has severely compromised their mental health and daily functioning ...

School should foster a love of learning and enquiry, a thirst to discover and uncover, a sense of fun and creativity, whether learning about the past or developing ideas for the future". These words respond powerfully to a sense of disquiet held by many educators, not only because Byron notes the rising numbers of students with mental health issues but also because many educators are concerned about how they will best prepare students for the future.

Yet, many of our schools have developed their reputations for delivering excellent external results based on the present, a present based in a very traditional past. Claxton and Lucas (2015) have identified the broad dispositions students need at different ages and stages of schooling. By the end of Year 8, they think students need to be able to make real world enquiries and see their own possible selves. By the end of Year 10, they think students need sustained engagement with bodies of knowledge and research. By the end of schooling, they think students should have dispositions for deep scholarship and extended making (vocational) dispositions.

We now need to ask if our secondary students have such levels of mastery at these stages. Certainly, at Rooty Hill High School, up to 60 per cent of our students start high school three to five years behind their peers. It is higher in many other schools, including many schools in Tasmania.

Many of our secondary principals are now asking what they need to do to 'future proof' learners and learning. Is it possible that turning a school community around on current measures might be as useful in the long term as improving the pony express in the face of the arrival of the telegraph?

From rhetoric to reality: creating a culture of success in secondary schools

School culture and context

It is now important to turn to the questions posed for this presentation and to how Rooty Hill High School has responded to those questions.

When you think of comprehensive government schools in western Sydney, what do you think? Do you imagine low expectations, disengagement and underachievement?

There is evidence for this view. There are communities in western Sydney where there is an acceptance of low achievement from students, teachers, schools and sadly—the community itself. You may have similar perceptions of some secondary schools and communities in Tasmania and across Australia. Many Australian parents will be just a little pleased when their children do not have to go to these schools and there will be people who 'have made it' who will apologise to their adult peers when they talk about the school they attended when they were at school. These dinner party conversations tell just as much about the critical issues for the future of secondary school education as any reports published in recent years.

There is nothing worse for principals and teachers than working as hard as or harder than other colleagues to create improvement for students and not being recognised for improvement and success on the annual (and highly variable) snapshot measures determined by governments and systems. Broadly, these measures fall into three groups: attendance measures, retention measures and attainment measures. They are useful as triangulating and comparative measurement tools for schools but they are not enough.

I would argue that schools hold significant reservoirs of data and information and that those schools whose personnel wish to change the learning trajectory for students will use a wide range of sources for their information. They will be much more likely to measure changes over time and to see the patterns that emerge. They will strongly prosecute the argument that the school 'most like our school is our school last year and our school next year'. These are the schools that focus on patterns, progress and improvement measures. They develop cultures that are disposed to innovation (often as a result of a crisis or the failure of decontextualized, system-wide approaches) and their leaders bring others on the journey. They keep their schools focussed on the future and on the opportunities presented to try new strategies aligned with the culture of the school.

From rhetoric to reality: creating a culture of success in secondary schools

School planning

At the centre of the work to create a culture of success at Rooty Hill High School is a new collaborative approach to school planning, school evaluation. This approach includes a willingness to initiate and implement new strategies and projects that will create the change we want.

The New South Wales Department of Education introduced the new school planning model in August 2012 that is based on the work of Simon Sinek. Starting with redefining the purposes of the school, based on a statement of the school's strengths, each government school in New South Wales has identified three strategic directions on which to focus their work, learning, teaching and resources. The three directions at Rooty Hill High School are:

Capability driven curriculum: We will deliver our overall purpose through the development and implementation of high quality creative, digital, capability driven curriculum, teaching and learning, and assessment designed to increase the learning trajectory of each student.

Personalised learning: We will deliver our overall purpose through the development and implementation of high quality universal, targeted and intensive personalised learning programs that give each student the opportunity to do his or her best in making a successful transition to 21st century life and work.

Leading for innovation: We will deliver our overall purpose through a values driven, research based culture with a disposition to leading for creativity, improvement and innovation in our planning, partnerships and professional practice.

We know our purpose and it is clearly articulated in the school plan. It is underpinned by our articulated school values and an over-arching set of beliefs. We believe we have a moral contract with our parents and students to give every student the opportunity to do his or her best. As teachers we do not teach the students we want to have; we teach the students we have to be the ones we want to have. We spend a lot of time communicating with parents who have made the choice to send their children to the school to create the confidence in them that they have made the right choice. This is reinforced by the use of social media to engage a new generation of parents who are increasingly connecting to us in new ways.

From rhetoric to reality: creating a culture of success in secondary schools

Focus area: Capability driven curriculum

Purpose: We will deliver our overall purpose through the development and implementation of high quality creative, digital, capability driven curriculum, teaching and learning, and assessment designed to increase the learning trajectory of each student.

Key Improvement Measures:

1. average growth and value added data (learning trajectories) to within 1 mark of state average;
2. 40% of all students achieving Band 4+ in external tests and an average GPA of 3.5 on internal academic reports.
3. 80% students achieving benchmark standards in ACARA/BOS capabilities

People (capacity)	Processes (see details in milestone chart below)	Products and Practices
<p>Students: Using the ACARA/BOS benchmarks, the literacy and numeracy continuums and a variety of other tools, students will be able to understand and track their own learning trajectories, skills, capabilities and dispositions from Years 7 – 12.</p> <p>Staff: 80 teaching and 16 administrative (para-professional) staff will oversee the delivery of curriculum, using agreed school wide platforms.</p> <p>Teaching staff: There will be an intensive professional capacity building program focused on the Australian Professional Standards for Teachers. In particular, there will be a focus on understanding the key school platforms, the features of high quality programming, assessment design and implementation for capabilities, ROSA and the HSC. All teachers identified as proficient will be able to demonstrate skills in programming & assessment, the application of the school's platforms, literacy & numeracy continuums, the ACARA benchmarks in programs, the digital curriculum, lesson sequences, lesson design and assessment.</p> <p>Executive staff: Curriculum Head Teachers will be responsible for the underpinning professional learning and development, implementation, monitoring, evaluation and reporting of the implementation of school wide platforms and practices in curriculum, assessment and student performance in each subject they supervise.</p> <p>Lead faculties and capability leaders: Each faculty will be asked to lead action research and the implementation of new strategies, tools, routines and innovations. Each faculty will have a capability leader to lead the implementation of the capabilities within and across faculties.</p> <p>Consultants: The staff will be supported by three consultants with expertise in literacy, programming, assessment and ACARA/BOS capabilities. The partnership with Expansive Education will continue.</p> <p>Parents: Parents will be asked to engage with the school in understanding their own child's learning skills and progress against the capability and disposition benchmarks.</p>	<p>UNIVERSAL PROGRAMS</p> <p>Capability driven Curriculum</p> <p>Programming 7 - 12 – high quality school platforms, scope & sequence, programs, lesson sequences, lesson design, assessment, achievement standards and feedback.</p> <p>Subject specific programming, teaching and learning of skills, capabilities and dispositions.</p> <p>TARGETED PROGRAMS</p> <p>2015-17: We are digital learners</p> <p>2015-16: We are Writers</p> <p>2015-16: We are Creative Learners</p> <p>2015-16: We are Problem Solvers (numeracy)</p>	<p>Practice: Using a range of student learning benchmarks, the school undertakes ongoing action research to identify and create innovative programs and strategies to increase the learning trajectory of students.</p> <p>Product: Every subject taught in the school has high quality, BOS aligned program and assessment documents aligned to school wide platforms.</p> <p>Practice: Teachers embed capabilities and creative, higher order student learning activities into each subject program to ensure skills develop into capabilities and dispositions.</p> <p>Product: 40% of students achieve Cluster 16 or equivalent by the end of Year 10 in literacy, numeracy, ICT and critical & creative thinking.</p> <p>Practice: In every subject student performance over time will be tracked using "the story behind the curve" to identify and track improvements, innovations and changes in student performance.</p> <p>Practice: Targeted programs are designed and implemented using an action research framework to ensure that the purpose and planned outcomes of the program are planned, implemented, studied and reviewed.</p> <p>Product: The products of each targeted program are embedded as platforms within the school and subject based curriculum.</p> <p>Product: Every student will be able to use any device, anywhere, anytime to learn and create high quality academic work.</p> <p>Product: There is evidence that the school's assets, technology infrastructure and learning environments better support an innovative connectivity and capacity for 21st century learning.</p>

Figure 5.2
Rooty Hill HS School
Plan-overview

Details of the Rooty Hill HS school plan and its associated projects are available on the school's website at www.rootyhill-h.school@det.nsw.edu.au

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It is important to note that the document is just a record—the power of the shift this has made to our culture is in the collaborative and creative processes of planning, tracking, monitoring and reporting on progress towards the new practices and products we want to have in place. It is in watching the role of executive staff shift from compliance roles to leading and managing key change projects. It is in the increasing skills of the teaching staff to undertake action research projects, manage student data and apply their learning to the creation of new change platforms for learning.

One of the most powerful learnings for the school's teachers and administrative staff in the last three years has been in identifying, collecting, analysing and using data to inform decision making in classrooms, programs, projects and the milestone tracking required for the school plan. When we established the projects and milestones for each strategic direction at Rooty Hill High School we set up measures that would capture how much we have done (inputs including professional learning), how well we have done it (effectiveness) and what impact/difference it has made in terms of student achievement and growth.

As a result we have identified the following key performance measures for the school, agreed measures on which we will track our progress in the next three to five years. There are concessions to the need to triangulate with external data and there is also recognition of the context of our school, with its strong vocational education programs, focus on capabilities and the goals of the Melbourne Declaration.⁴

Key performance measures

1. average growth and value added data (learning trajectories) to within one mark of state average;
2. 40 per cent of all students achieving Band 4+ in external tests and an average GPA of 3.5 on internal academic reports;
3. 80 per cent students achieving benchmark standards in ACARA/BOS capabilities;
4. 40 per cent of students seeking university entry and 90 per cent planning tertiary education after leaving school;
5. all students demonstrate progress in their digital portfolios towards being successful learners, confident and creative individuals and active and informed citizens; and
6. the school is recognised as a major developer of innovative intellectual, organisational, social, professional, leadership and educational capital.

⁴ The Melbourne Declaration on Educational Goals for Young Australians articulates nationally consistent future directions and aspirations for Australian schooling agreed by all Australian Education Ministers. The Melbourne Declaration has two overarching goals for schooling in Australia: Goal 1: Australian schooling promotes equity and excellence; and Goal 2: All young Australians become successful learners, confident and creative individuals, and active and informed citizens http://www.curriculum.edu.au/verve/_resources/National_Declaration_on_the_Educational_Goals_for_Young_Australians.pdf.

From rhetoric to reality: creating a culture of success in secondary schools

Change platforms, strategies, processes and projects

I am going to assume that many of you are already familiar with the work done by Hamel and Zanini (2014) for McKinsey & Company and I would just comment (as an aside) that one of the reasons I am an avid Twitter fan (@chrisawsey) is the amount of research and credible reporting that comes to me on social media through teachers, academics and research organisations.

I have shared the key messages from the work of Hamel and Zanini with our school community and, as a result, we have had deep discussions about why many of the 'prescribed and pre-designed programmatic solutions' traditionally imposed on schools in the 20th century did not work. I would recommend reading the full article (see link in footnote). Five recommendations have informed our work:

1. Encourage individuals to tackle significant organisational challenges that might be considered normally beyond their sphere of influence and/or at the limits of their zone of proximal development.
2. Encourage personal responsibility in individuals for initiating the change they want and give them tools and resources to 'spur' creative thinking and creativity.
3. Foster honest and forthright discussion of root causes and, in the process develop a shared view of the 'thorniest' barriers.
4. Elicit many possible solutions or options rather than jumping quickly to a single approach—diverge before converging.
5. Focus on generating a portfolio of experiments that can be 'conducted locally' to help prove or disprove the general solution rather than going for a grand design.

We now try to ensure we focus on school-wide platforms and processes to underpin our programs and projects. We seek alignment across the school at a policy and platform level; projects and programs are then targeted within the platforms.

Let me share four highly successful processes now used by the school in this work:

Lead faculties and project leaders. When the school has a major project to do, such as the work done with the Improving Literacy and Numeracy National Partnership in 2013–14 we now identify lead faculties—teams of teachers who will conduct small scale trials and evaluations of platforms and tools we think will be effective. Where they are effective, they are adopted across the school. The school also creates 'positions' within faculties for teachers who are peer leaders on projects within the school plan. The following comment was made in the final report comments: ILNNP was a model of this new approach—a network of willing but initially inexperienced NP leaders, lead faculties, focus on experimenting, successful faculties working together to solve subject based problems, consultants to guide from the side, use of social technologies, creation of agreed platforms for reading, writing, thinking, creativity supported by deep programming owned by teachers.

Professional learning teams (PLT). At Rooty Hill High School all teachers (including the principal and senior executive staff) belong to a professional learning team and undertake action research into a targeted area identified in the school plan. Members of each team design and conduct action research that informs the products produced by the PLT during or at the end of the year and then adopted by the whole school.

Capability driven curriculum. In New South Wales, the curriculum has traditionally been driven by strong content frameworks and there has been a tension in secondary schools between traditional 'content-based' approaches to each subject and the capabilities that are assessed in NAPLAN and in other external assessments including ESSA (Essential Science Skills Assessment in Years 8 and 10) and the Higher School Certificate. This will be extended in 2016 when PISA assesses fifteen-year-olds for skills in creativity and problem solving. Working with Professor Bill Lucas and three in-house consultants the school has reframed its subject-based programming and lesson design to 'teach through the ACARA capabilities' rather than teach them explicitly and separately from each subject. There has been a shift in the rate of learning, the learning trajectories and the overall performance of students on the ACARA benchmarks, in NAPLAN results and, from Term 3, 2015, students in Years 7 and 8 will be able to demonstrate their performance on the capability benchmarks (in addition to traditional academic reports) with their new e-portfolios.

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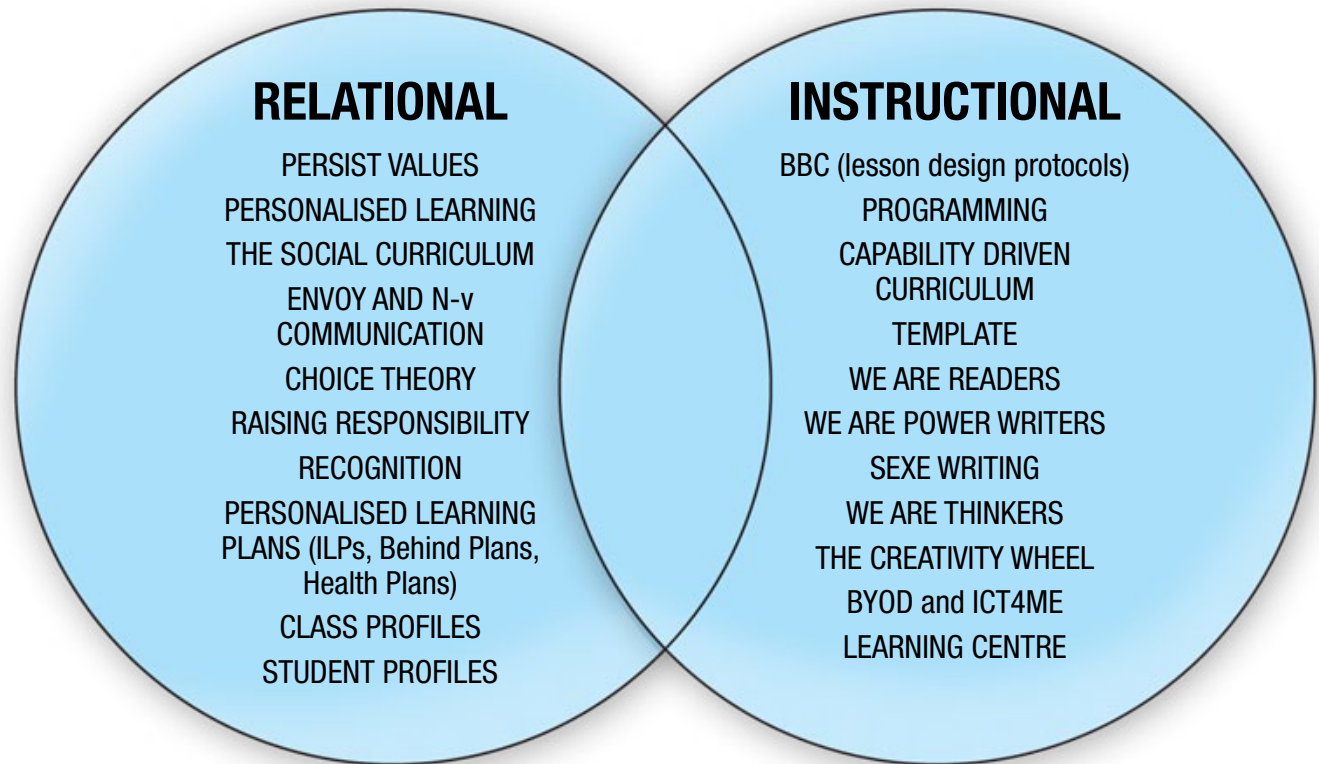
School wide-platforms. As well as gauging our progress on key performance measures (see above), the school is also measuring its progress towards the products and practices identified in the school plan. The digital portfolio for students is one example of a product for which the school has planned. A second, and significant product has been the publication of key instructional and relational platforms, including the publication and use of the Creativity Wheel—a platform (tool) now being used in each subject to deconstruct and reconstruct learning against the key dimensions of creativity identified by research and trialled by a professional learning team in 2014 (Figures 5.3 and 5.4 below).

A culture of success

In times of great transitions, schools and school leaders have always responded by creating the best opportunities and systems they can. In preparing this presentation I took time to consider the elements of the shift towards success that Rooty Hill High School is making (Table 5.1). It is important to recognise that this is not an either/or approach; rather the school moves along the continuum depending on where we are sitting in the planning, implementing and reviewing cycle.



From rhetoric to reality: creating a culture of success in secondary schools



SCHOOL SYSTEM PLATFORMS TO SUPPORT LEARNERS AND LEARNING

School Plan and Strategic direction teams
PLT projects and Action research
School Operations Plan
Partnership program – SVA, Beacon

Aboriginal Education and AECG partnership
TPL and BOSTES endorsed provider
Sentral and social media

Figure 5.3

Instructional and relational platforms
at Rooty Hill High School

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Figure 5.4

Platform: Creativity Wheel

MOVES FROM

A focus on external measures & averages
Annual management plans
Failure mindset
Snapshots & reactions
Top down targets & programs
Gaps & poor grades (A-E)
Teaching to the test
Structure and procedure
End of school measures

TOWARDS

A focus on learning trajectories & progress
Longer term plans & consistency
Strengths & growth mindset
Patterns, proactivity, feedback
Collaborative strategies & platforms
Growth & benchmarks
Learning skills & capabilities
Culture and systems
Vocational & tertiary completion

Table 5.1

Indicators of a culture of success

From rhetoric to reality: creating a culture of success in secondary schools

Conclusion

Success does not always last in schools. In spite of this fact, those in a school culture who believe the school can be successful and work towards that end constantly develop in its characteristics, values and purposes that can be sustained. I have been privileged to be a principal in the same school for seventeen years and to have conducted a number of school-wide 'garage sales' where we decided what to keep, what to throw out, what to put in a box for later and what to try to get to keep us focussed on doing our best for students and their families. If you have not had an organisational garage sale for some time, I would highly recommend it as a way to work out what to continue, what to change and most important, what to stop doing so high leverage work can proceed.

Finally, if I were going into a new position as principal in a secondary school I would then want to focus on the following high leverage processes:

Strengths. A strong focus on the strengths, values and purposes of the school, especially those that are important to the students, teachers, the community and the future.

Systematic measurement. Ongoing assessment of the purposes, processes, products and practices that are valued by the school community for the future of their students.

Evidence-based practice. A school wide commitment to action research, experimentation and cycles of inquiry and research.

Stopping what does not work. Knowing we are willing to 'throw out stuff' that did not work, was not evidence-informed and that could have damaged the future learning culture of the school.

Collaboration. Working together to find new ways to build the capacity, capabilities and dispositions of staff, students and the community to do the work we have to prepare for the third decade of the century.

Creating and sustaining a culture of success. An ongoing focus on graduating highly educated eighteen year olds who are ready to live their own lives (not yours or mine); undertake new and emerging types of work; and embrace further learning.

6

The shared work of
learning: achieving
transformative
outcomes through
collaboration



The shared work of learning: achieving transformative outcomes through collaboration

Tom Bentley



1. The problem

Too many young people in Australia are starting behind in their education and staying behind, and too many are disengaging from school. Meanwhile, emphasis on educational improvement intensifies, as it has done for the last two decades. The pressure to improve learning outcomes in ways that are faster, cheaper and more sustainable continues to grow. Yet while the quality of teaching and learning has improved in many schools, it is not improving enough to counteract the effects of systemic inertia, fragmentation, and growing social and economic inequality. This situation creates entrenched inequality of educational outcomes and opportunities, which are further exacerbated by economic and spatial trends. As a consequence, there is a mismatch between the learning needs of students and schools, and the current capabilities of education systems.

This paper examines the role of collaboration in lifting student achievement and overcoming community disadvantage and sets out an agenda for systemic change based on using collaboration to achieve impact at scale.

Australia's stagnation and decline in international assessments of literacy, numeracy and science is relatively well known. The patterns of inequality and disadvantage that run through education are also persistent. Analysis of Australian 2003 and 2006 PISA results confirms that the mean socio-economic status (SES) of schools is strongly associated with academic outcomes regardless of the individual SES of a student: the higher the mean SES of a school, the higher the level of academic attainment.

The 2009 ABS Survey of Education and Training (SET) showed that Year 12 attainment of young people (20–24 years) rose from 70 per cent to 75 per cent between 2001 and 2009. However, for those living in the most disadvantaged areas it fluctuated between 50 per cent and 60 per cent. Meanwhile, the Victorian real estate industry reports that houses within the catchment of 'good' schools attract a price premium of 10–15 per cent. Academic research in the ACT found that a five per cent increase in school test scores is associated with a 3.5 per cent increase in house prices.

Increasingly, differences in the wealth and background of students at different schools also magnify inequalities in their resourcing.

NATSEM analysis shows that between 2003–04 and 2009–10 average family spending on pre-school/primary education increased by 79 per cent, and average family spending on secondary education increased by 101 per cent. Poorer families just cannot keep up. Yet the increases in private spending are not leading to improvements in overall outcomes.

ABS data show that young people aged 20–24 are more likely to have attained Year 12 if both their parents or guardians had attained Year 12 (90 per cent), compared with one or neither parent or guardian having attained Year 12 (78 per cent and 68 per cent respectively).

Some 18.4 per cent of students do not make it to Year 12. A quarter of 17–24 year old school leavers are not fully engaged in education, training or work, a figure that increases to 42 per cent for people from low SES backgrounds.

The shared work of learning: achieving transformative outcomes through collaboration

Schooling is not serving the needs of all students.

As the economy changes around us, the consequence is widening inequality and, for some, deepening despair.

2. The promise of collaboration

Over the last decade, some school systems around the world have made real progress, while others including Australia's have stood still and gone backwards.

In response to this challenge, and in tune with wider changes to our social and economic landscape, education practitioners and policymakers are increasingly turning to collaboration as a method for achieving progress amidst more diverse, flexible and connected operating environments.

Collaboration is sharing effort, knowledge and resources to pursue shared goals.

The focus on collaboration is part of a much broader shift to a 'network society', driven by changing social values and digital technology. In this transition, economic and social coordination and exchange are shaped increasingly by self-organising networks of information networks, where social identities and institutional forms evolve to reflect the ongoing influence of these networks, eroding the power of traditional hierarchy. Our personal, social and work lives, and those of children and teenagers, increasingly reflect this trend.

Our economies also increasingly demand people with the skills to participate successfully in collaborative work and organisation; this is reflected in growing expectation that schools will develop these skills and capabilities in their students.

Collaboration is increasingly sought after in education (and in other sectors) because it seems to offer three key benefits:

1. Swift and efficient coordination of shared activities, avoiding the perceived cost and rigidity of centralised, bureaucratic organisational structures.
2. Authentic engagement and relationships built through voluntary, reciprocal action, which may moderate the fragmentation and isolation caused by intensive, silo-bound competition.
3. Flexible, differentiated support that matches teachers and learners with specific sources of support tailored to their specific needs and objectives.

Collaborative strategies and innovation in schooling are not new. But in today's context of entrenched disadvantage, accelerating structural change and new patterns of connection, the question is: how can collaboration be understood and applied in our diverse, fragmented and increasingly unequal landscape we face today, and harnessed to achieve impact at scale?

The shared work of learning: achieving transformative outcomes through collaboration

3. The solution

To achieve and improve outcomes at scale requires a different approach to pursuing them systematically—a different way of understanding and constructing ‘the system’ from our current models. We found that some schools and their partners achieve outstanding outcomes—beyond those that would be predicted by socio-economic circumstances—with the help of distinctive practices built up through persistent, collaborative effort. These characteristics are:

- shared purpose: a deep commitment to student learning;
- combining longevity and energy in staffing through teams comprising long-standing veteran classroom practitioners with a stream of younger practitioners bringing new energy and ideas;
- collaborative leadership, through which principals consistently and intentionally develop the capacity of others to act in the service of long term goals;
- building community trust with professional trust through a strong focus on building team-based collaboration and social capital;
- drawing on external expertise by reaching out to find specialist knowledge and advice; and
- permeable boundaries which support clear, purposeful routines and the sharing and absorption of new knowledge and practices

Such practices point to ways in which collaboration could be fostered, spread and harnessed to achieve deep, lasting educational transformation at scale. But to do so requires a method—an approach to institutional design—that could identify such practices and work to apply them systematically across whole communities, using a logic that resonates for students, teachers, families and also the wider institutions and decision-makers who shape public institutions.

The later sections of this paper address the logic of such a system—the next great education systems—and make a series of recommendations for action and policy based on five interlocking priorities:

- identify learning need;
- build platforms for professional collaboration;
- grow community voice;
- create shared pools of data; and
- reshape governance around learning.

Embracing and harnessing collaboration can create the next wave of big gains in education. These gains are essential to prevent the slide of our education system into increasing inequality, and to create better outcomes, literally for every student.

4. Why change is needed: the growing pressures on school systems

Education is a priority everybody can agree on. Yet inequality and entrenched disadvantage are growing, as the outcomes of schooling simultaneously fail to improve. In a vicious cycle, our over-reliance on competition between schools and competition to enrol high-status students is worsening the problems of inequality and fragmentation.

The last decade has seen a global explosion of educational reforms, strategies and investments seeking new routes to progress. Yet the effort to lift student achievement remains stubbornly difficult. Politics, ideology, institutional fragmentation and simple human fatigue all too often prevent sustained progress in student learning.

The shared work of learning: achieving transformative outcomes through collaboration

The policy focus on quality of teaching reflects the weight of evidence showing the fundamental importance of the relationship between teacher and student to learning outcomes.

Teaching

The policy focus on quality of teaching reflects the weight of evidence showing the fundamental importance of the relationship between teacher and student to learning outcomes. However, this focus also has unintended negative consequences. First, it can too easily be used as a political foil to deflect attention from other factors that are also relevant—such as family poverty, student resourcing and the fairness of assessment measures. As the OECD has suggested, these factors may be more testing for policy makers to influence in the short term. Second, this focus can also easily be translated into policies and actions that do not act to improve, sustainably, the quality of teaching. Paradoxically, seeking to isolate, compel, prescribe or incentivise teacher quality in the wrong ways may damage or undermine the capacity of teachers and schools to offer high quality teaching.

Schools

The focus on quality of teaching revolves increasingly and relentlessly around the individual school as the unit of success or failure. This shift has its origins in the school effectiveness movement and literature. It found its place in the sun during the 1980s and 1990s as the tide turned against top-down, centrally managed, large-scale public systems. On many levels it is correct. The quality of learning, leadership, organisation and culture does vary from school to school and have a fundamental impact on student advancement.

But the ongoing emphasis on school-level performance, school-level organisation, and school-level comparison risks locking in place a set of structures and competitive dynamics that impede better outcomes for all students. It reinforces a specific organisational model of the school, with its subject-based, age-cohort progression, standard school sizes for primary and secondary, teacher-class structure and standard hours of working and learning. And it perpetuates ever-growing social competition for places in 'good schools', generating constant pressure towards social and geographical segregation, and fuelling competition between schools of different sectors with overlapping geographical catchments.

School versus home: a false dichotomy

Our over-reliance on schools and teaching as the agents of educational improvement reinforces a crucial weakness in our understanding of how to lift outcomes: a distinction that does not exist in the lives of students.

The basic separation of professional and organisational impacts of the teacher and the school from the social and cultural impacts of the family and the community is a mainstay of educational practice—an everyday assumption. Yet there is not an 'either-or' choice that reformers and educators must select: a choice between a 'teacher quality' path to progress, or an 'anti-poverty' path. Instead, the question should be: how can we realistically address both sets of factors? And 'realistically' has to include cost-effectiveness. It is the job of the system to think about the whole student—but different methods, and different structures, are needed to make that a reality.

The shared work of learning: achieving transformative outcomes through collaboration



5. The practice of collaboration: findings

Research in which I have recently been involved has examined schools and community collaboration in three Australian school systems. The research found that diverse schools, serving highly disadvantaged students and families, use collaboration in numerous ways to support student achievement.

Collaboration—the sharing of effort, knowledge and resources in the pursuit of shared goals—plays a central and partially hidden role in the achievement of student learning outcomes.

In all three locations studied, collaboration results in staff, students and community members gaining access to a network of information, opportunities and expertise that would otherwise be unavailable within the confines of an individual school.

Professional collaboration is deeply embedded in the culture and organisation of the case study schools. It is used to support, sustain, evaluate and refine professional learning about teaching and learning strategies. Using collaboration to access expertise, data and relevant practice is an essential part of their daily practice.

Local collaboration with other schools, universities, employers and community organisations also plays an essential role in providing the structure, resources and expertise for student achievement.

These schools also use collaboration with students, parents and the community to build trust and social capital, which are highly influential in supporting a culture of high expectations, student learning and shared responsibility.

Collaboration is conducted through a wide range of flexible, trust-based relationships. It is not confined to a single team or unit, or controlled from above by principals or senior managers. Staff, students and parents are encouraged to share ideas and show initiative. A consistent, long term focus on the needs of their students provides a clear rationale for choosing when to invest time and energy in collaboration, and when to decline offers of partnership.

In effect, each school is actively constructing its own local learning system, actively seeking out connections and resources, and using collaboration to translate them into actions that will create value for students.

The shared work of learning: achieving transformative outcomes through collaboration

6. Seven key features of collaboration

Several important characteristics help to explain the positive impact and potential of this practice:

Shared purpose: the commitment to learning

Strength of commitment to student learning spurs people at these schools to seek out and develop new collaborations in order to achieve more and transcend the limitations of school organisation, resourcing and location. Combining this consistent long-term purpose with flexibility and clarity about specific opportunities for collaboration enables the schools to sustain their focus on student achievement, and to build mutually reinforcing connections between academic progress and student wellbeing.

Combining longevity and energy in staffing

All the schools in the case studies showed a distinctive combination of long-serving senior teachers with younger, newer staff. This mix appeared to maximise the value of long professional experience, and to bring fresh waves of ideas and new experience to bear.

Collaborative leadership

Distinctive and sustained forms of leadership by principals and other stakeholders supports collaboration and enables schools and communities to have clear directions. This leadership was exemplified by the school principals who took part personally in collaboration and intentionally extended it to others. All of the principals studied maintained an explicit commitment to teaching and learning and to modelling and leading professional learning, but they placed it in a broader context of community relationships and shared purpose.

Community trust, professional trust

Correspondingly, significant time and energy is invested in building trust between professionals and the wider community and among teaching and support staff.

Drawing on external expertise

In their quest for student achievement, all the schools consistently pursue and use expertise and specialist knowledge from outside.

Permeable boundaries

They are able to draw in external knowledge effectively because each of them sustains 'permeable' boundaries of organisation. While they keep clear organisational routines and timetables, these structures do not prevent sharing time, funds, physical resources and knowledge when there is a clear purpose or benefit for students.

Well-being and attainment: co-evolution

All the case study schools recognise the positive long term relationship between wellbeing and attainment, and prioritise both accordingly, even when the two goals might compete for resources or attention in the short term.

The shared work of learning: achieving transformative outcomes through collaboration

7. Actions for systemic change

The priority for the decade ahead is to learn how to use collaboration systematically to accelerate improvement in outcomes across diverse, flexible education systems.

The search for momentum and progress in schooling systems involves questioning how to mobilise whole systems—thousands of teachers, students, parents and community partners—in settings that are increasingly diverse and flexible.

Fundamentally, education systems need to learn from the continuous feedback of practice and local knowledge, and to articulate system-wide priorities that reflect both social goals and rigorous evidence about practice and impact; this will not be achieved by focusing only on the quality of teaching or prioritising individual school 'autonomy'. Instead, we need a system-wide agenda that focuses on the fundamentals of teaching and learning and combines them with wider relationships. The system must be defined more as a set of relationships and activities through which a shared purpose is created and achieved over time.

In that context, supporting collaboration effectively for the purpose of student learning is the overwhelming strategic priority. It applies simultaneously at the level of teachers and students in local communities, and of systems and agencies working across cities and regions.

8. Recommendations for policy and action

Priority 1: identify learning need

The first leadership task for policymakers and for educational leaders is to give voice and visibility to the learning needs of students. Articulating why education matters, how it is valuable, and where it is most needed in our community, is essential to any effective strategy for change. It is a task of political, policy professional and community leadership, supported by community participation, data and evidence. These imperatives then need to be reflected in the curriculum, in classrooms, in assessments and accountability methods.

Action: identify visible learning goals

- Ministers and education officials should invest in broad-based community processes to identify, discuss and develop learning goals for their education systems. Departmental strategies should include developing and refreshing these goals with the wider community.
- Through their annual planning cycles, education departments and regions should identify the learning goals that are high priority, and make them publicly visible to encourage collaboration and exchange of lessons and solutions.
- System leaders should continuously articulate, model and communicate these learning goals; part of their leadership should involve making them clear and visible to the wider community.

Action: dedicate resources to learning need

Transparent, needs-based funding is an essential foundation of any strategy for improving student outcomes. In Australia this is an incomplete task. Completing it requires:

- the full implementation of needs-based 'student resource standard' models in states, territories and non-government systems, together with
- a federal government funding framework that delivers an equitable allocation of overall resources and a real increase in education spending, weighted rigorously towards student need, noting that
- much of the legislative, regulatory and data framework needed for such a system is already in place.

The shared work of learning: achieving transformative outcomes through collaboration

Priority 2: build platforms for professional collaboration

Build platforms that:

- enable teachers to work together across the organisational and geographical boundaries of school sites; and
- support professionals from different fields to work together to solve common problems across education, health, business, families and community development, including through shared service platforms.

Action: every school needs a 'home group'

Local groups of neighbourhood schools must be able to work together to:

- prioritise successful transitions between schools;
- form connections between teachers with similar professional responsibilities;
- harmonise student records and assessment data; and
- build systems which support greater personalisation and continuity for students as they move from pre-school to primary school and on to high school.

Action: every teacher should have a 'home group' too

Modelled on the use of study groups in Shanghai, Singapore, British Columbia, and the practice observed in many of our case studies, school systems should identify a study group for every teacher when they join a school, and especially during pre-service training and induction.

Action: schools should get support to consider 'twinning' and 'federation' where there is a clear student-led rationale

System authorities should step up experimentation with 'federated' governance structures for schools, supporting groups of schools to come together around shared operations and leadership where there is a clear rationale for doing so.



Priority 3: Grow community voice

Collaboration to improve student outcomes is not solely a professional conversation.

Attitudes, relationships and decisions in the wider community also have a powerful influence on what students get from their educational experience and which resources schools can access. Building stronger relationships with the communities that surround schools leads to higher student achievement.

School systems should invest in identifying, trialling and spreading the use of community consultation, dialogue and enquiry models to increase the commitment and participation of their surrounding communities.

Action: dedicate funding for cross-school community workers

Quality youth and multicultural workers who are outwardly focussed can create bridges between students, families, schools and services. Education systems should create dedicated funding streams and employment structures for staff working deliberately across multiple schools and with other community partners, supporting both professional and community collaboration across local communities.

Action: include student voice in decision making

Education systems should consider ways in which students can play an active role in the governance structures of schools and how their views can be recognised in establishing learning priorities.

The shared work of learning: achieving transformative outcomes through collaboration

Action: develop at least three 'open access networks' for every local government area

Schools should also have the option, and the opportunity, to join at least one wider network of schools which deliberately spans a much greater scale and range of locations.

Priority 4: Share pools of data

Systematic support for this kind of collaboration requires a revolution in sharing and using educational data. Collaboration relies on shared, trusted information.

But data are only as good as the tools and structures that support them, and here the organisation of schools and education systems places basic, unnecessary, constraints on using data to enhance learning. It is not just teachers within schools who need data to support collaborative action, but a wide range of partners working together around schools as well. Accelerating the development of 'open source' data, and public sharing of relevant data, is an important priority.

Action: build common standards for analysis, data security and categorisation

A key priority for policy is to develop architecture that promotes sharing and pooling while protecting privacy and data integrity.

Action: create data platforms to support sharing between agencies and schools in 'many to many' relationships

Creating a culture of 'transparency of results and practice' is fundamental to the next stage of system change and to realising the benefits of collaboration.

Priority 5: Restructure governance around learning

Finally, education systems need to reshape their own accountability structures and relationships to focus more strongly on learning outcomes and build shared capability for learning at a systemic level.

Conclusion: the next great education systems

Our future education systems are emerging, unevenly distributed, from the practices of the present. What they look like and how well they work in a generation's time depends on which signals we pick up on collectively, which relationships we strengthen, and which ones we allow to wither. Our overview suggests some emergent characteristics of the systems that will succeed most dynamically in the next generation of reform, and achieve the greatest positive impact on disadvantage:

All students learn and progress along a pathway they value. The overarching test, relentlessly applied, is whether all students are learning sufficiently. This applies from the most motivated, highest-achieving students through to the most disadvantaged and least engaged.

Resources directed towards learning need:

- to ensure that all students are learning, high performing education systems will explicitly channel resources towards need; this may seem straightforward, but it is too rarely achieved; and
- in the broader view of systems that we have outlined, resources are both formal and informal. They include the skills, knowledge and connections of the educational workforce and the surrounding community.

The shared work of learning: achieving transformative outcomes through collaboration

Diverse system outcomes are all valued learning outcomes.

- Too much time and energy is currently consumed in educational politics over a supposed contest between formal attainment through literacy, numeracy and academic qualifications versus 'soft' outcomes including wellbeing, resilience and creative problem-solving.
- In the 21st century the emphasis on non-cognitive development, creativity and collaboration is growing because our society demands more. It is no longer acceptable to assume a separation of roles between schools taking care of formal curriculum content while families shape the character of their children.
- The test of a high-performing education system is whether it can promote the development of both sets of outcomes in ways that are integrated, workable and available to all students.
- In high-performing education systems, all these outcomes will be valued and visible, concrete and tangible, reviewed and debated, taken seriously for every student.

Many-to-many relationships

- Rather than one-to-one (coaching, supervision, feedback) or one-to-many (lecturing, broadcasting, prescribing), the relationships through which learning flows in a network-based society are many-to-many.
- Great systems will pursue intentional strategies to create many, dynamic, interlinked relationships, in different locations and at different levels of scale. They will then learn systematically how to use them to create better learning outcomes. In the process they will move beyond their dependence on planning goals and allocating resources through a vertical chain of command.
- Perhaps the most important connections to be made are between the sites of practices—the places where students learn and where teachers teach—and other sources of knowledge and resources.

System-wide cycles of learning

- The practice of teams of teachers is based on a cycle of designing, enacting and then evaluating the impact of their practice. Similarly, education systems need to undertake the same functions at larger scale.
- The large-scale strategic role of policy centres and system-wide administration will change to focus more on designing and performing cycles of learning, adjusting governance structures and routines to better serve learning objectives, and building capabilities that are identified as priorities in each system and community.
- Creating these capabilities will be the major focus of efforts to restructure central policy-making, administrative and regions over the next decade.
- Resourcing and accountability will be focussed around building and shaping learning systems—systems that actively invest, identify, amplify and recognise the actions that lead to sustained improvement in student learning outcomes.
- Embracing and harnessing collaboration could create the next wave of big gains in education. These gains are essential to prevent the slide of our education system into increasing inequality, and to create better outcomes, literally for every student.
- This requires a radical shift in policy emphasis and political language. It does not rest on a single intervention or 'lever.' It demands that we build new capabilities out of what parts of our systems already know and can do.

The good news is that this work is already happening. The challenge is to make it count for every student.

7

Features of effective education systems: learnings from the OECD



Features of effective education systems: learnings from the OECD

Andreas Schleicher
and
Sue Kilpatrick
in conversation



Please click [here](#)
to listen to this interview

8

Reflections from keynote session chairs and panellists



Reflections from keynote session chairs and panellists

Hope and enthusiasm in the air



Kwong Lee Dow

The stated purpose of the Underwood Centre is 'to seek Tasmanian solutions that can improve our education, integrating learnings from overseas with the unique local context'.

The opening of the Education Transforms Symposium was a splendid demonstration of precisely this goal. Through meticulous planning, balancing international and Australian presentations, balancing lectures with opportunities for focussed participant discussions, and with attention given to every detail, the scene was set to achieve a memorable conference.

What stands out in retrospect was the high quality and stimulation of all sessions. Many fresh perspectives and contexts were offered. One session of special note was the video interview with Andreas Schleicher on broad contemporary international learnings. Its value was enhanced by the questions from Sue Kilpatrick, which enabled clear focus on top order issues relevant to Tasmania.

The other session I choose to highlight is the inspirational case study of a western Sydney high school which showed what can be achieved by a stand-out Principal—Christine Cawsey. She works collaboratively with her staff and students, unfazed by the apparent bureaucratic constraints of a large state system, to offer what would otherwise be 'reluctant learners' a sense of achievement and confidence in themselves. These were documented and data-driven attainments, and not simply helping people to feel good.

The symposium was organised to make everyone aware that these two days were but a stage on a bigger road to reform with the University, the State Government at the highest levels, and the educator workforce of Tasmania being encouraged to join a sustained long-haul effort for radical enhancement of learning and schooling across all Tasmanian communities.

I left the symposium confident that a significant and plentiful community of people will be dedicated to work together cooperatively to give this challenging goal their very best shot. Hope and enthusiasm was in the air.

Reflections from keynote session chairs and panellists

A new level of excitement – and more opportunities to engage the business sector



Scott Harris

Tasmania's youth unemployment situation is dire, as is our performance across many key indicators related to educational attainment. The fact that the University of Tasmania has put its name to the issue of educational attainment is significant in bringing greater credibility and focus to these crippling issues. If this is the one outcome that is to arise from the Education Transforms Symposium then it is worth doing, as the problem has been camouflaged for many years. Several organisations and people have tried to get a greater focus on the key issues with isolated success. The symposium created an independent forum for the issues to be tabled with a new level of excitement, in my view not seen before, about what can be achieved.

The forum highlighted that there are still some within the bureaucracy who believe there is not a problem; perhaps they are concerned that any criticism is a reflection upon their own performance.

Let's face up to the fact that the situation we are in is not a reflection on the performance of any one group and acknowledge that the time is right for a collective commitment from all political parties and other key stakeholders who can leave their own vested interest 'at the door' and focus on the task at hand. The business community is pivotal to this success and it was disappointing that there was not stronger representation from this group at the symposium.

The solutions to these issues are far from resolved I know, but with the intellect of the university and best practice examples of success from organisations such as the Beacon Foundation (biased I know) we can get to where we need to be in providing all Tasmanians with an education level that gives them the best possible chance to succeed for themselves and their families.

I look forward with great optimism and enthusiasm to the steps ahead.

Reflections from keynote session chairs and panellists

Transformation of individuals and a culture



John Williamson

Mid-July, winter, in Hobart. A symposium aimed at transforming not just individuals but also an educational culture. Stated simply, like this, it seems a daunting challenge for the first Peter Underwood symposium and, in turn, it gives rise to several questions, including: What was the aim of the symposium? Was it successful? What did we learn? Where to from here? The following is a personal reflection on these matters and, as such, I'll not seek to cover the whole symposium but rather will highlight some of the thoughts that have stayed with me.

The ambitious aim of looking at education as a catalyst for personal, social and economic transformation was a very appropriate way to recognise the many significant contributions made to Tasmania by the late Governor, Mr Peter Underwood AC. Keynote presenters addressed the perplexing issues of educational aspiration, participation and achievement in ways that emphasised the need for strategies that recognised the challenges of personal and social history, community engagement or the lack thereof, and pride in excellence of all kinds.

The major presentations and ensuing informal social occasions allowed for conversations about what we know that works in many different contexts and how—or whether or not—it might be adapted to be trialled in Tasmania. The concurrent sessions provided opportunities for researchers both national and local to help flesh-out the major themes that had been described by the keynote speakers. The session audiences had wonderful opportunities to learn as the content of the presentations ranged from, say, educational policy at the international level, as in *how might we explain at a national level the comparative success or otherwise of some educational system vis-à-vis another system?* through to *what makes a champion school in an Australian suburb?*

All types of presentations used data to address the challenges and, in addition to saying what worked and what might be emulated, they were valuable also in identifying those strategies that had little or no success and so provided opportunities for the audience to reflect on how best to use available resources in our context.

Of course, I was particularly interested in Professor Ian Menter's presentation about how, in England, they are trying to link the existing best relevant educational research with teacher education courses and practices, and examining the outcomes of this linkage in schools through changed student engagement, student satisfaction and student achievement. This is a serious challenge for all Initial Teacher Education providers as we try, on the one hand, to meet regulatory guidelines for course accreditation which are ever-more demanding and, on the other hand, to make available the time for the innovative research as a strong Faculty in the contemporary University. We are confident that we have in place some of the building blocks to achieve the 'joined-up' tasks outlined by Professor Menter, and his talk has provided insights into where we need to aim next.

The symposium was a great success in bringing together top-notch speakers in a collegial context to discuss and challenge many current orthodoxies. It not only excited, enthused and provoked over three days, but there is a strong residual element of 'getting-on' with those areas where I can work with others to make a contribution to the lasting success of the symposium—and the broader Peter Underwood Centre aim.

Reflections from keynote session chairs and panellists

For meaningful dialogue
and learning from
each other



Susan Chen

The Underwood Centre is a bold new venture with a vision of Tasmania and Tasmanians having greater opportunity, economic and otherwise, through the gateway of better education.

It is generally acknowledged that, relative to other Australian states Tasmania has (a) lower retention rates from Year 10, and (b) average or lower benchmark results across literacy, numeracy and science. The orthodox explanation is that Tasmania is typical of similar socio-economic areas of Australia. Rather than the data challenging some in the education sector, there seems to be a real risk of complacency and acceptance that we are doing as well as can be expected.

It was heartening to listen to keynote speakers who strongly emphasised that the responsibility for improving educational standards is on government, community, educational systems and schools. For too long, schools have been seen as solely responsible for the problem and the solution.

Keynote speaker and policy adviser, Tom Bentley, provided international examples of governments and school systems working together to improve educational attendance, retention and attainment. We can build on the learning of others and the Underwood Centre is well-placed to collate and synthesise those learnings and engage stakeholders in meaningful dialogue.

Keynote speaker and Principal of Rooty Hill High School in western Sydney, Christine Cawsey, spoke with passion about her unique school community which fosters shared purpose and values, engages in collaborative planning and has a strong disposition towards innovation. That education community has developed a culture of success despite the low socio-economic status of their students.

Students will achieve where there is a culture of high expectations, love of learning, creativity and innovation. Let us not settle for the complacent and the ordinary. Tasmania and Tasmanians can and should be extraordinary. Tasmania needs young people with knowledge and skills to become entrepreneurs and agents for advancement and change, and the education sector can and should help make that happen.

Reflections from keynote session chairs and panellists

Time to act

Adam Mostogl



Education remains one of the most divisive issues in the state at present, but there is one thing we can all agree on—our education systems are not meeting the expectation of the wider community. And when the perception of the wider public is poor results and concerning statistics, this will remain an issue for years to come; no matter what results might, in fact, be the reality.

Reflections must occur on how we deliver content so our students can maximise learning and remain engaged. Learning needs to become more than a classroom exercise but something everyone enjoys and do in their spare time as well. This expansion of the learning environment and how to build a culture of striving for the best is something that is important, so it becomes normal to be inquisitive rather than cool to skip school.

Such expansion cannot simply be around the key areas of academic achievement though, and we have to recognise the importance of the capacity of our young people as well and ensure through raising aspirations we create students confident to be active citizens into the future.

Such capacity cannot be dampened by parental and teacher influence, who hold such pivotal positions in the life of our next generations, as well as regional disadvantage which means the full range of options are never presented to the detriment of these individuals.

Throughout the symposium we were introduced to practices and ideas that were motivating and should be synthesised into the Tasmanian education systems, but then the question has to be asked: are we ready and willing to actually make a change in the first place? Because change can be hard.

The symposium, by providing engaging and thought-provoking contributions, has delivered a firm foundation for change.

Now it's time to act.

Reflections from keynote session chairs and panellists

Engendering a sense of purpose



Judy Travers

The Education Transforms Symposium provided a genuine opportunity to bring together educators and researchers from all key Tasmanian stakeholders; a major step forward.

What emerged from the symposium was the critical need to build quality and ongoing relationships with all sectors, based on trust and a sense of working together; all within an environment underpinned by clear purpose, appreciative inquiry and based on accurate data that is trusted by all.

In addition, the critical need was very apparent from the speakers and through workshop discussions, for educational pathways to be as seamless as possible in Tasmania; from birth to Year 12 to the University of Tasmania, TasTAFE and others, and including lifelong learning pathways.

A personal reflection from listening to presenters was affirming the critical need for key public messages about education from all stakeholders to be based on the reality of an accurate and optimistic platform of continuous improvement for education in Tasmania.

Another emergent theme was the need to continuously look outward and to learn from others, to build an aspirational culture in Tasmania.

The emerging research areas for the Underwood Centre looked to be clearly defined under a general umbrella of retention and attainment. I sensed a strong commitment from all symposium participants that the co-construction of such research and resultant learnings will be of great benefit to all sectors and Tasmania. There was also a sense that practitioners in the field could best work in partnership with the Underwood Centre, to connect practice and research and to develop and build Tasmanian contextualised data and findings.

The symposium set the stage for bringing stakeholders together, to start to affirm common purpose and understandings, to develop greater clarity of pathways and opportunities of working together and to continuously improve student retention and overall attainment.

Above all, the symposium enabled personal connections across sectors and engendered a sense of purpose, a sense of the whole and a sense of evidence driven opportunities of the Peter Underwood Centre; all needed if the attainment of educational transformation and the potential of every student in this state is to be realised.

9

Global challenges and the importance of involving teachers in transforming schools



Global challenges and the importance of involving teachers in transforming schools

Jeff Garsed



Internationally, there is an ideological agenda for public schooling that seeks to blame teachers and schools, via a regime of standardised testing, amid poor school resourcing, increased privatisation and corporate manipulation of education policy (Weiner, 2012). Locally, through their unions and professional networks, teachers seek to regain control of their profession. If successful, their focus can remain being one of educating for a better social and economic future.

Australians have the option to embrace what matters in education—properly resourced schools, highly skilled teachers who are trusted to make professional judgments—and to reject those measures which are proven to have failed. It will not be easy though in a media environment that supports the ideology of the Global Educational Reform Movement (GERM) (Sahlberg, 2012). The answer lies in educating our decision-makers and the broader Australian electorate about what does matter. The universities too, must avoid underfunding their faculties of education. In many Australian universities the education faculty functions as a 'cash cow' with constantly large enrolments requiring relatively low cost resources (Gill, 2015). Such an approach to teacher training does not help build teaching as a high-status, highly valued profession.

The lessons from Finland underscore the need to build teachers' capacities and to trust them to make the decisions they need to make to deliver educational programs. The Finns demonstrate to educational reformers that whole-system reform, to be successful, must inspire and energise people to work together for intended improvement (Sahlberg, 2012). Sahlberg notes the success of the Finnish education system is driven by factors almost opposite to those employed in countries that have been part of the GERM, where such education systems have provided object lessons in what not to do to when trying to ensure successful educational change. Success in Finland has at least in part been possible as, in that system, teaching is a high-status profession.

In addition to practical examples such as those from successful education systems, there is a wealth of evidence via research to show both the difficulty of effecting educational change and some of the effective drivers for successful change and its sustainability (Fullan, 2013). Research findings suggest that those who implement policy often have a different view of the change process to the initiators of policy (Fink, 2000).

Global challenges and the importance of involving teachers in transforming schools

Persistent myths

At a recent oration, Professor Steve Dinham (2014) noted 20 unfounded myths which persist in public discourse on education. Many of these are sources for a perceived crisis in education, the blame for which is placed on teachers and schools:

1. Public education is failing
2. International testing is a true barometer of the decline in public schooling
3. Private schools are better than public schools
4. Government funded independent and for-profit schools are better than private schools
5. Greater autonomy for public schools will lift performance [yet]
6. Greater accountability will lift public school performance
7. Money is not the answer—increased spending on public education has not resulted in improvement in student achievement
8. The teacher is the [most significant] influence on and is therefore responsible for student achievement
9. Merit pay/payment by results is the solution to improving teacher quality
10. Removing tenure and dismissing poor teachers will lead to greater student achievement
11. Schools should be resourced on the basis of results
12. The curriculum is a captive of the 'left'
13. Schools are not producing the skills and capabilities required by industry
14. 21st century skills are not being taught in 21st century schools
15. Technology changes everything
16. Teacher education is ineffective and the value of a teaching credential is questionable
17. The effects of poverty are too difficult to overcome
18. Educational research offers no solutions
19. Non-educators should lead (public) schools
20. Choice, competition, privatisation and the free market are the answers to almost any question about education (Dinham, 2014, p.1).



Many of these myths stem from ideologies that arise from the social and political context that envelopes education across many western countries including Australia. Such ideologies are less than helpful for focusing on what really matters in schools. Also, they show little deference to the professional understanding and judgment of classrooms teachers, upon whom any school improvement is ultimately dependent.

Global challenges and the importance of involving teachers in transforming schools

Social and political context

At a local level, schools and school systems are politicised and some of this is played out almost daily in the mass media. Ainscow (2005) notes that schools feel the political and bureaucratic pressures for improvements. Such pressures on schools largely have negative effects and can result in schools and systems having poorer performance for equity, a crowded curriculum, and the misplaced assumption that school can solve what home and families cannot (Ainscow, 2005; Gardner & Williamson, 2004).

What has more recently become apparent is an international phenomenon that has been bolstered by the media, notably in the UK and the USA—where much influence for Australian public institutions originates. This phenomenon is a powerful ideology known as the GERM agenda for public schooling, and one of its effects is to blame teachers and schools, via a regime of standardised testing, amid poor school resourcing, increased privatisation and corporate manipulation of education policy (Weiner, 2012; Sahlberg, 2012). The GERM is characterised by competition, test-based accountability, with an emphasis on school choice and increased privatisation (Sahlberg, 2012). GERM has some great allies among the corporate multinationals.

In the USA, as in Australia and elsewhere, public education is the largest piece of public expenditure which remains highly unionised and is not yet privatised. Because public schooling globally is a potential market worth trillions of dollars, it is a sector that is much contested and experiencing a manufactured crisis. Companies such as Pearson and the Murdoch global media empire, for example, have declared openly their intention to wrest education from public control to access vast untapped markets (Weiner, 2012). Murdoch himself has been vocal about the need to 'fix the crisis' in public schooling both here and in the USA. One of Murdoch's long-term projects is to develop further what he views as the revolutionary and profitable move by his media companies into online education (Guardian Online, 2012).

This desire to drive public education for massive corporate gain may be the greatest threat to the best interests of students in public schooling we have yet experienced. There are several other factors that are both the corollary of GERM ideologies and serve to support a manufactured crisis; of these, the testing regimes of PISA internationally and NAPLAN locally are perhaps the most obvious.

Global challenges and the importance of involving teachers in transforming schools

Gaining a sense of proportion with national and international comparisons

Results from national and international standardised testing regimes PISA and NAPLAN are frequently used and misused by political parties and the media as evidence of a crisis in schools.

It is only fair to provide PISA ranks with some context. Sixty-five countries participated in PISA testing in 2012, double the number in 2006 (32). Over this time, the biggest impact on the ranking of all above-average performing countries has been the addition of East Asian OECD economies, which now dominate the top five international rankings on all measures. While there is no doubt Australia could still do better, particularly on equity of outcomes, the media has reported PISA results without the much-needed context to understand where our education systems need to improve and what extant factors have led to our current standing (Boston, 2014).

The PISA results are country aggregates that often masks the variance within the nation. The reasons for such country-internal variance also differ. For instance, the Australian Capital Territory consistently outperforms other Australian jurisdictions and Canberra is high SES which is a strong predictor of educational success. In 2009, Warsaw was equal to Finland yet Poland was a low-performing country overall. Warsaw had focused a strategic investment on whole-school instructional leadership and developing better classroom practice and targeted funding on areas of greatest need. People around the rest of the country then took up this matter and now Poland is close to the top of the PISA league table (Boston, 2014). Similarly in Canada, the province of Ontario leads the country because of targeted and strategic investment in areas of underachievement (Boston, 2014).

On Australian national comparisons of NAPLAN results, Tasmania is frequently reported as performing poorly (ABC, 2014). Yet, when these figures are adjusted for SES a different picture emerges of the work of Tasmanian teachers. On PISA's Economic, Social, Cultural Status (ESCS) Index Tasmania scores well below any other Australian jurisdiction. The index relates to aspects of student background that have largest effect on educational outcomes, including parents' education and occupation, books in the home, number of possessions, and number of educational resources available to them.

The capacity of NAPLAN test results to provide an accurate depiction of the relative performance of Australian educational jurisdictions is contestable. There is at least the anecdotal reporting that some schools and systems take part in the testing with a skewed cohort. Relative levels of participation of students with lower ability across systems and student coaching in particular schools has brought the validity and reliability of NAPLAN results into question (ABC, 2015).

Wu and Hornsby (2012) argue that NAPLAN tests are misused. At best, NAPLAN only measures fragments of student achievement. The margins of error are large. The tests are not diagnostic and so they cannot properly inform teaching or track student progress. They are also inappropriately used to evaluate teacher and school performance when so many other factors influence test scores (such as poverty, parental support, personality, or interests).

NAPLAN encourages the practice of teaching to the test. The importance placed on the test results means that NAPLAN is shaping the curriculum being taught in schools. If what is at stake is high, the influence of the testing regime will be greater. It is an influence that detracts from teachers' planning, building and adapting curricula based on sound professional judgement; their knowledge of local contexts; and student needs. As such, these influences weaken rather than strengthen teacher professionalism. Instead of improving schools, obsession with high-stakes testing has been damaging to educational outcomes in the USA (Berliner, 2012) and similar experiences are noted in the UK (Stevenson & Wood, 2013).

Despite the limited capacity of testing regimes to provide us with meaningful comparisons, there is much use and misuse of their data in attempts to do so.

Global challenges and the importance of involving teachers in transforming schools

Finland and Canada

Finland is one country that others look towards for clues as to how to create a high performing education system; it should perhaps not be the only country. It is worth noting that in Finland high educational attainment does not sit as an isolated achievement. Equity is an important value to the Finns and they enjoy more even income distribution than most. Finland also performs very highly on a range of other important indices including happiness, technological advancement and child health and wellbeing, to name just a few (Sahlberg, 2012).

Finland was not always a top performing country educationally, nor had the Finns sought for it to be so (Sahlberg, 2012). What is perhaps most interesting educationally about Finland is that it has remained immune to the GERM. Largely, this immunity has been possible because, for more than 40 years, subsequent governments (often coalitions of multiple parties) have not varied widely on key education policy but rather stuck to core values of equity of achievement for all (Sahlberg, 2012).

The way Finland has rejected the core values of the GERM is seen by Sahlberg (2012) and others (Weiner, 2012) as key to its relative educational success. Sahlberg points out the key differences between Finland and countries that have taken up the ideological precepts of the GERM.

GERM countries	Finland
Competition	Collaborative – sharing and cooperation
Standardisation – rather varying the curriculum to suit the individual	Individualised curriculum
School choice – related to competition, and sold as producing better outcomes, and acted against equity	Equity
Test-based accountability	Trust-based professionalism

Table 9.1

Educational characteristics of GERM countries compared with Finland

The lessons from Finland, Sahlberg (2012) notes, are to have confidence in teachers and principals as highly trained professionals; encourage teachers and students to try new ideas and approaches—in other words, to put curiosity, imagination and creativity at the heart of learning; and to see the purpose of teaching and learning as pursuing the joy of learning and cultivating development of the whole child.

One means by which Finland has teaching as a high-status profession is to limit places in pre-service courses, and thus make entrance to the profession highly competitive. In contrast, many Australian universities have large enrolments in education courses that require relatively low cost resources (Gill, 2015). Such an approach to teacher training is an impediment to build teaching as a high-status, highly valued profession.

Education systems are often large and multifaceted and the challenges involved in improving them are likely to be similarly complex. The systemic improvement seen in Finland was the product of a decades-long commitment, widely supported and unsullied by changes in government (Sahlberg,2012).

On the PISA tables, Finland shares, with Canada, Singapore and Japan, its position as a world leader for high equity, high quality education. Among the top group countries it is perhaps Canada that shares the greatest cultural similarity with Australia. Canada is well ahead of Australia overall and has better performance for equity, at least partly attributable to the comparatively elitist structure of Australian schooling (The Conversation, 2015).

Global challenges and the importance of involving teachers in transforming schools

In Australia, education funding matters

International comparisons confirm that Australia's total spending on schools is a little above the average for the OECD countries (Connors & McMorro, 2015). Intensified by the uniquely Australian situation of a three sector system of government, Catholic and independent schools, all paid for or at least heavily subsidised by public funds, there is stark inequity in the resourcing levels available to Australian school students. Any government proposing to improve funding equity using only existing funding levels would prove electorally unpopular as parents in the non-government sectors now view publically subsidised choice as a right. This dilemma forms the single greatest hurdle to systems-wide improvements in Australian educational outcomes.

In fact, OECD figures produced before the Gonski Review of Schools Funding show that Australia was the third lowest among developed countries in terms of funding public schools, and one of the highest funders of non-government schools. The Review was established in response to known causal relationships between aggregated social disadvantage and deteriorating national educational performance (Boston, 2014). Ken Boston of the Review Panel pointed out the circumstances preceding the Review:

In 2010, the 2009 PISA results had shocked the nation. It clear that our international performance was declining in both absolute and relative terms in comparison with other countries, and there had developed since the year 2000:

- a much stronger correlation between under-performance and aggregated social disadvantage than in any other comparable country, and
- a gap between our highest and lowest performing schools greater than the average for the 34 OECD countries (the 2012 PISA results have since shown that the position has worsened) (Boston, 2014, p. 1).

The key recommendations of the Gonski Review Panel were for a funding system which is "sector blind and needs-based" (Boston, 2014, np).

From the political right, too, there is acknowledgement of the equity problem. Jennifer Buckingham from the Centre for Independent Studies, a right wing public policy lobby group, has noted that "the challenge is to design a public funding model that does not exacerbate socio-economic inequities but which also does not create disincentives to private investment in schools" (Buckingham, 2011, p. 1).

Maintaining demand for non-government schooling has been seen by governments as a key way to keep taxpayer costs for education down. Yet, it may not be all about cost efficiencies as a recent report by Connors and McMorro (2015) note that, rather than producing overall savings, increased public recurrent investment in non-government schools between 1973 and 2012 has caused an increase in the overall running costs of governments. This investment has occurred as growth in non-government schools has robbed government schools of students who are less costly to educate leaving state schools with greater concentrations of the poor, Indigenous, recent immigrants and students with disabilities. Such public expenditure on privilege in education has thus further compounded inequitable educational outcomes, the long term cost of which to Australian society is likely to be immense both for individuals and in reduced overall economic capacity.

As education in Australia has become a place of political and ideological contestation, developing shared ways forward that are inclusive and respectful and seek to strengthening of our teachers and school communities should be a key priority. Finland and Canada stand as useful examples. Corporate investment may be appealing to governments who seek cheaper alternatives to proper public funding commitments, but the interests of the multinationals are in profits and not ultimately in the best interests of our schools and their communities.

10

What should you tell them?
Evidence-based
guidance for students



What should you tell them?

Evidence-based guidance for students

Angela O'Brien-Malone
and
Mark R. Diamond



Introduction

The association between the performance of students at secondary school and their subsequent performance in the first year of university has been of enduring interest to educators, researchers, and university administrators as well as to both government and university policy makers (Bagg, 1968; Dobson & Skuja, 2005; Everett & Robins, 1991; Jones & Siegel, 1962; Kelly & Fiske, 1951; Lavin, 1965; Mora & Escardibul, 2008; Wagner & Strabel, 1935; West, 1985). The reasons for this interest are many but include the expectation that an understanding of the relationship between secondary school performance and university performance will improve our capacity to answer questions such as:

- What categories of students in general should be offered a place at university?
- Is the school academic grade of some (particular) student high enough to warrant her being offered a university place?
- Do some secondary school subjects better prepare students for first-year university than do other subjects?
- What should I answer if one of my students asks me whether I think she should go to university?

In Australia, questions about the relationship between academic outcomes at the end of secondary school and subsequent performance in first year university have frequently been formalised in terms of the relationship between students' Australian Tertiary Admission Rank (ATAR) and their weighted average first-year university mark (WAFYM). Generally this relationship has been summarized by calculating the correlation between these two variables (ATAR and WAFYM), or more usefully, by determining the (least squares) regression line that best describes the data; see, for example, the regression line in Figure 10.1, discussed in a later section. One way to think of the regression line of WAFYM against ATAR is as a description of means, or averages. The regression line shows the expected average WAFYM for students with any particular ATAR.

This focus on average or mean outcomes is not because school principals or university vice-chancellors have a particular interest in average performance but because the arithmetic mean is a single-value summary of the performance of the whole population of students. But in many circumstances the expected average first year mark of a cohort of students is not what a university administrator or teacher actually needs to know. Still less is it likely to be useful to secondary school students who are grappling with decisions about what opportunities to pursue after Year 12. Similarly, when university policy makers or administrators consider their institutional admission policy, they might be concerned to some degree with average performance, but will also want information about risk and opportunity; that is, they will want to avoid selecting students who are likely to do poorly (or require disproportionate resources and support) and they will also want to know how to identify students who will perform at the very highest levels.

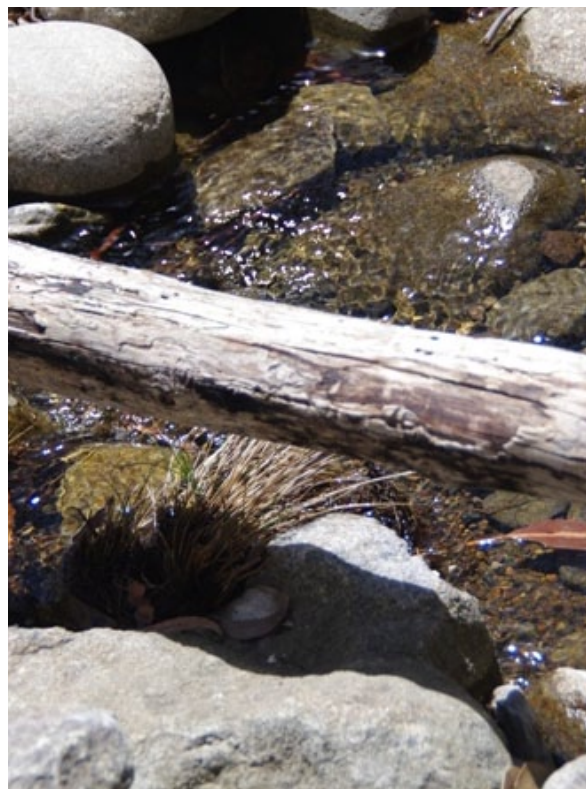
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Equally, when faced with answering a student's question about whether or not to attend university, a teacher will likely be interested not just in the correlation between school and university outcomes but will also want information about the risk that the student has of not doing well at university and about the likelihood that the student will perform exceptionally well. In these respects the concerns of teachers talking to their students and those of university administrators are completely congruent, but their quest for information will not be satisfied either by knowing the correlation between ATAR and WAFYM, or by knowing the equation for the regression line of WAFYM against ATAR. Fortunately, there are other analytical approaches that can answer the questions.

Before continuing with this thread, let us return to our teacher (whom we will call Sally) who is now faced with her student, John, asking about whether he should go to university. We have already noted that Sally might consider the risk that John will do poorly or the possibility that he will do excellently. But there is something else she should consider before she gives her advice, namely, if John is to go to university, what is the best route for him to get there? And by best we do not mean 'is there a route which will guarantee him the offer of a place?' Rather, we mean 'is there a pathway into university which will give John the greatest chance of success once he enrolls?'

Just as teachers and university administrators are matched in their desire to minimise the risk that students will not do well at university, they are also matched in this further concern. There are many pathways into university. If some of those pathways offer the possibility of better university outcomes for some populations of students, then both teachers and vice-chancellors will want to know. We wanted to explore these issues.



Our approach

We obtained de-identified data for 18,262 students admitted to Monash University between 2007 and 2010 and who completed at least one year of study. The data included the ATAR, WAFYM, and pathway of entry into university for each student. Most of the students in the data set were admitted to Monash University directly from Year 12 and we refer to those students simply as Year 12 entry students. A much smaller number of students admitted to Monash University enter via the TAFE pathway (Willis & Joschko, 2012). TAFE entry students are those who, having completed Year 12 and obtained an ATAR, subsequently complete some study at TAFE before being admitted to university on the basis of that study. In our data set, 16,831 records (92.2 per cent) were for Year 12 entry students and 1431 records (7.8 per cent) were for TAFE entry students.

Because Monash has an ATAR cut-off of 70 for Year 12 entry students, a student who applies to enter Monash on the basis of the ATAR they achieved at the end of their secondary schooling will not be offered a place if that ATAR is less than 70. This is not the case for TAFE entry students who are considered for entry into Monash on the basis of their academic performance at TAFE, together with other more subjective criteria. The consequence is that Year 12 entry students always have ATARs greater than or equal to 70 whereas TAFE entry students have ATARs that cover the full range.

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Questions

We were interested in the following questions:

- Are all entry pathways equal? Do TAFE entry students have the same chance as Year 12 entry students of doing well in their first year of university study?
- Is the risk of not performing well in the first year of university the same, or different, for students from the two entry pathways?
- Is the potential for outstanding excellence the same or different?

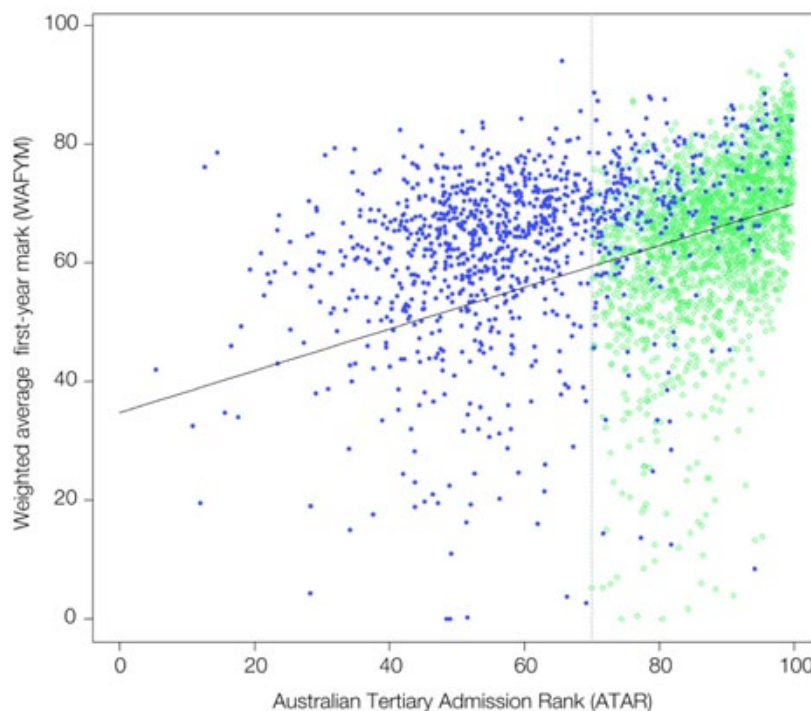
Clearly, in order to address these questions, one must decide what one means by 'doing well', 'not doing well', and 'outstanding excellence'. The choice of where to place the binary divide, for example, between 'doing well' and 'not doing well' necessarily involves a degree of arbitrariness but if it is to be useful, it must make sense within the university context.

Although we considered using a WAFYM of 50 as the threshold for 'doing well' we rejected it on the grounds that a bare pass and 'doing well' are not generally considered to be the same thing. Instead, we have used a WAFYM of 60 per cent as the threshold for referring to a student as 'doing well' on the grounds that it roughly equates to a credit grade. We also decided to consider 'outstanding excellence' as being equivalent to a WAFYM of 90 per cent. In case the reader is of the mind that 90 is a rather low bar for referring to outstanding excellence, it is worth reflecting on the fact that although there will be relatively many students who get a very high grade in one, or perhaps two, of their first-year units, a student's WAFYM is affected by their performance in all of their first-year units.

What we found

What is the general pattern of WAFYM and ATAR?

As a first step towards answering our questions about risk and excellence, we took the tried and true path of creating a scatterplot of the data showing WAFYM plotted against ATAR (Figure 10.1). We also fitted a standard regression line, of the kind that we criticized in the Introduction, showing the average WAFYM to be expected across all students who had any particular ATAR, without regard to their entry pathway.



Weighted-average first-year mark (WAFYMs) as a function of ATAR among Year 12 entry students (open green diamonds) and TAFE entry students (solid blue circles) at Monash University.

Ordinary least-squares regression line (solid black) is for the whole sample.

Vertical line indicates the Monash University ATAR cut-off for direct entry from Year 12.

Figure 10.1
WAFYM plotted against ATAR

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There are several things to note about the distribution of points (students) in the scatterplot. First, most of the points, for both Year 12 entry students and TAFE entry students, tend to form a dense cluster above the regression line rather than being distributed symmetrically above and below it. The reason for this is that the expected average WAFYM (which the regression line summarises) is dragged downwards by the scattering of students who obtain very low WAFYMs, in much the same way that the average of 100, 100, 100 and 0 is dragged down to 75 because of the single zero score.

The second thing to note about the scatterplot is that the points representing TAFE entry students seem to sit generally higher than those for the Year 12 entry students. Third, while the distribution of points for TAFE entry students appears to trend steadily upwards from the left to the right of the scatterplot, in the case of Year 12 entry students there is a suggestion of a sudden upward surge in WAFYM among those students with ATARs above about 95. Finally, as one should expect given the Monash University ATAR cut-off for Year 12 entry students, there are no points for Year 12 entry students to the left of the vertical line at ATAR=70.

Although we could fit separate regression lines for the TAFE entry and Year 12 entry students in place of the single line shown on the scatterplot, very little is gained in terms of answering our questions about risk and outstanding excellence. Instead, we turned to a different method of analysis referred to as 'quantile-regression with restricted cubic splines'; for technical details, see Koenker and Bassett (1978), Koenker and Hallock (2001), and Harrell (2015).

Risk and outstanding excellence: are all pathways equal?

In contrast to the regression line in Figure 10.1 which indicates something about the expected average WAFYM of students, the points in Figure 10.2 indicate the probability ('chance') that a TAFE entry student or Year 12 entry student will 'do well' in their first-year of university—that is, the probability that the a student will obtain a WAFYM above 60.

If one looks along the horizontal line that we have called the line of even chance, one can see that a TAFE entry student (blue circles) with an ATAR of about 38 has an even chance of doing well and their chances of doing well continue to improve steadily with increasing ATAR. In fact, a TAFE entry student with an ATAR of 69 has about an 81 per cent chance of doing well in their first year of university, despite the fact that the ATAR of 69 would have set them on just the wrong side of the Monash University cut-off for direct entry from Year 12. In contrast to the favourable chances of a TAFE entry student doing well at university despite a low ATAR, the chances of a low-ATAR Year 12 student are considerably poorer. For example, a Year 12 entry student (green diamonds) will need to have an ATAR of at least 74 before they have an even chance of doing well. On the other hand, the chance of a Year 12 student doing well rises with increasing ATAR much more rapidly than it does for TAFE entry students.

So, the answer to our question about whether all entry pathways are equal appears to be 'No'. For any given ATAR, a student entering Monash University from TAFE will generally have a much better chance of doing well than a student with a similar ATAR entering directly from Year 12. We say 'generally' because if one looks at the far right hand side of Figure 2 it appears as if the line of points for Year 12 entry students and the line for TAFE entry students converge in the high ATAR range, suggesting that Year 12 entry students with ATARs of about 95 will have the same (very good) chance of doing well as TAFE entry students with similar ATARs. Indeed, their chances of 'doing well' might exceed those of the TAFE entry students.

What should you tell them?

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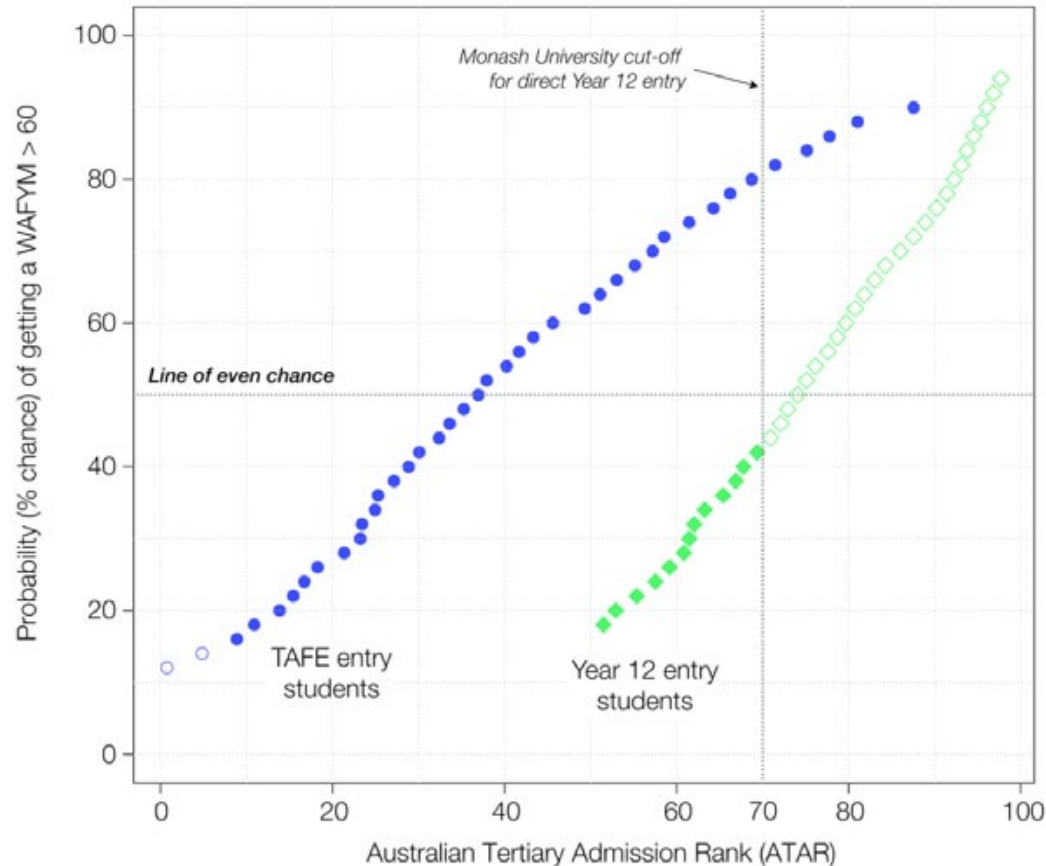


Figure 10.2

Probability ('chance') that a TAFE entry student or Year 12 entry student will 'do well' in their first-year of university

Probability of Year 12 entry students (open-green diamonds) and TAFE entry students (solid blue circles) obtaining a weighted average first year mark (WAFYM) greater than 60 given their ATAR. Solid green diamonds and open blue circles reflect extrapolations beyond the available data.

When one looks for outstanding excellence, the situation with regard to entry pathway is reversed compared with what one finds when looking at the chances of doing well. Outstanding excellence is, by definition, a rare occurrence and so our conclusions are more tentative, being limited to some extent by the availability of data. In fact, outstanding excellence is sufficiently rare that we have not provided a graph of the results. Only about one in every 180 Year 12 entry students obtains a WAFYM above 90 and they are generally confined to those Year 12 entry students who obtained ATARs over 98; in contrast, the likelihood that a TAFE entry student will demonstrate outstanding excellence is very much smaller. Only one in 700 TAFE entry students are likely to obtain a WAFYM over 90.

What should you tell them?

Evidence-based guidance for students

Conclusions

Academic excellence is valued by universities so the opportunity to attract those rare students who have the capacity to perform at an extreme level of excellence is something that sets the hearts of vice-chancellors racing. And why not? It is those excellent students who might ultimately contribute to the university's research community, improve its reputation, and enhance its capacity to deliver good learning outcomes for all. Such rare individuals will most likely be found among the cohort of Year 12 entry students but not all of them will be found there. A few will be found among TAFE entry students, but they will be spread more thinly.

Meanwhile, teacher Sally is still talking to student John, and wondering what advice she should give him. The first thing Sally can tell John is that if he does not achieve an ATAR sufficient to gain him an offer of a place at university, but he has his heart set on going, then he might do well to enrol at a TAFE. The period of TAFE study is likely to dramatically improve John's chances of doing well at university. Correspondingly, it is likely to reduce his risk of going to university but doing badly.

Similarly, even if John's ATAR is minimally sufficient to get him into university he might still do well to undertake TAFE studies first. With an ATAR of 70 John would have barely an even chance of doing well in his first year of university but his chance of doing well would rise to around 80 per cent if he first studied at TAFE.

Finally, if John is one of those students whose ATAR is extremely high then Sally might encourage him to go straight into university. His chances of demonstrating outstanding excellence are much greater than for lower ATAR students, and even if he is not one of the rare, very bright stars, it is most unlikely that he will perform poorly.

Unfortunately, that is as far as our data will take us but it is worthwhile speculating about why going to TAFE appears to improve the subsequent university performance of many students. One possibility is that TAFE gives students a chance to master a particular set of necessary skills, including adult social skills, the capacity to motivate oneself, the capacity to maintain one's focus on long-term goals and the ability to manage competing time commitments. In other words, the significance of TAFE might be that it allows students who are on the brink of adulthood time to grow up.

Alternatively, if we think about the cognitive (rather than social) skills needed to be a successful adult learner, TAFE studies might provide a half-way house between school and university and might, therefore, allow students to gain their 'sea legs' as they move more gradually from the kind of learning environment found in school to that found in university. In the half-way house students might discover what kind of study approach and habits suit them. They might also overcome some skill deficits, in areas such as advanced numeracy or literacy, that contributed to their poor secondary school results.

No doubt there are other potential explanations for why TAFE studies improve subsequent university outcomes. But it is clear from this discussion that, in giving advice to a student, a teacher might want to factor in her knowledge of the student's particular personal characteristics—both in terms of social maturity and in terms of cognitive skills. And for a student who is offered a place at university but on the basis of a relatively low ATAR, the teacher might have some insight into whether the poor ATAR was a result of transient external factors (such as illness or family crisis) or whether it was more likely the result of factors internal to the student. One thing that is certain is that more research is needed to address these issues.

One final comment: universities vary in their missions, their relationships to the communities in which they are situated, their focus on research, and their criteria for TAFE entry. It would be worthwhile replicating our analyses using the data of other universities in order to begin to understand whether the characteristics of universities themselves contribute to the pattern of results we have observed in the Monash University data.

Acknowledgements

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11

Factors that influence students' educational aspirations



Factors that influence students' educational aspirations

Ian Hay,
Jane Watson,
Jeanne Allen,
Kim Beswick,
Neil Cranston,
and Suzie Wright



Aspirations provide the student with a goal and a direction and this can influence many of the choices a student makes about schooling. Aspirations are an important consideration in education because students' educational aspirations have been shown to be closely associated with the students' eventual educational achievement and educational outcomes (Nurmi, 2004).

This paper draws on Australian research conducted by the authors on factors that influence the formation of students' educational aspirations. The findings are based on survey data involving a sample of almost 4000 students across primary, secondary and senior secondary school settings, located in the state of Tasmania.

The main findings in terms of students' level of educational aspirations are outlined below.

1. Students' educational aspirations scores were on average in the moderate range, using a 1-to-5 scale.
2. Girls had slightly higher educational aspirations scores compared to boys.
3. Schools with higher ICSEA scores (a measure of social and economic disadvantage) had slightly higher educational aspiration scores.
4. Students who had higher rates of school absenteeism from school had lower educational aspirations scores.
5. Across the three main school sectors in Tasmania, students' educational aspiration scores were higher in late primary school, but decreased in the high school Years 7 to 10, then increased again in the senior secondary school Years 11 and 12.
6. Students' educational and career aspirations were becoming established in the primary school years.
7. Many students reported little or no discussion with their parents about future educational pathways.
8. Many parents did not hold strong views about their children continuing on with their education.

Regression analysis was used to investigate the main factors that influenced the formation of the students' level of educational aspirations. This statistical analysis showed that the five main factors were: (1) parent support; (2) students' English ability; (3) teacher support; (4) students' level of confidence about school; and (5) students' mathematical ability.

The implications of these five factors are reviewed in the following section.

Parental factors

The evidence from the Tasmanian research and from other studies (such as that by Nurmi, 2004) shows that the family is one of the most important factors involved in forming students' educational aspirations, expectations, and future plans. The home is considered to be highly influential in advancing students' educational aspirations and in helping students maintain their social and psychological well-being (Hay & Ashman, 2003). The assertion is that positive student outcomes are more probable when home and school are connected, when they share common values, when they mutually support each other, and when the student is connected to both the home and the school.

Parents have been shown to influence their children's ongoing educational choices, subject selection in high school, and career aspirations. Over time parental aspirations for their children and their children's own self-aspirations tend to come together (Nurmi, 2004). This convergence can help students if their parents hold positive and high aspirations for their children and the parents are able to support their children to reach those aspirations (Abbott-Chapman, 2011).

Academic and school influences on aspirations

The Tasmanian data support the notion that students' educational aspirations are influenced by gender, teacher support, school absenteeism, school achievement in English and mathematics and a successful transition into the senior high school Years 11 and 12. Although these factors can be considered in isolation, in reality they are cumulative and interactive. Positive effects in one factor can help mitigate against a negative factor in another factor. For example, a low level of school absenteeism and a high level of teacher support can help mitigate against difficulties with English.

Parents have been shown to influence their children's ongoing educational choices, subject selection in high school, and career aspirations.

Subject selection

High school is an important time in terms of students' educational aspiration formation because it is in high schools that students may start to favour particular subjects. Understanding how low educational aspirations can have unintended consequences is illustrated in the selection of mathematics. Students with a positive career goal are more likely to select mathematics as one of their Year 11 and 12 subjects.

Even when students have the ability to do higher level mathematics, but have lower self-concepts about their mathematical ability, they still tend to select the lower stands of Year 11 and 12 mathematics (Lazarides & Watt, 2015). This choice can have unexpected consequences because mathematical thinking is important across most professions and careers. Students leaving school are also often surprised about the entrance standards of vocational training courses and the required standards needed in mathematics and English to complete those courses.

Mathematics achievement is an important factor that influences students' level of educational aspirations. Given the finding that educational aspirations start in primary school, primary school teachers need to be able to understand the content of the mathematics curriculum as well as know how to teach that content to the children in their classroom. If teachers are uncomfortable or anxious about mathematics they are more likely to transmit this anxiety to the students they are teaching (Darling-Hammond, 2012) and so indirectly influence students' educational aspirations.

Teachers thus have a role in helping to form students' aspirations and they can help mitigate against low aspirations for students in the home. The problem is, if both the teacher and the parent both have a low expectation for the student, the student is disadvantaged and a negative self-fulfilling prophecy may start to operate for that individual (Watson et al., 2013).

The role of teachers

The Tasmanian survey results demonstrate that teacher support has an important role in the formation of students' educational aspirations. Teachers have a professional responsibility to assist students to achieve their potential and to encourage students to deal with the 'difficult' content taught in the classroom. Teachers have a role in scaffolding the student's learning and this involves assisting the student to persevere with the task so the student gains a level of independence in doing the taught task.

Unintentionally 'dumbing down' content so that the student does not have to extend him/herself is not in the student's best interest. Eventually, the student will have to face that higher order content in a higher grade. 'Rescuing' the student by not exposing the student to the more challenging learning activities is indirectly saying to the student: 'it is too hard for you, give up, and have low aspirations'.

Home-school connections

Parents are very influential in forming students' educational aspirations. Teachers also have a role in "educating" parents about what is occurring in the classroom and in assisting parents to have positive aspirations about their children's educational futures (Abbott-Chapman, 2011).

Teachers can unintentionally communicate negative aspirations about a student to parents and to individual students. When a parent says, for example, my child wants to leave school and do a trade or to work on a farm, the teacher needs to consider how to respond because leaving schooling early disadvantages students in terms of their long-term opportunities (Gonski, 2011; Lamb, Walstab, Teese, Vickers & Rumberger, 2004). Farming is also a business that requires an individual to have skills in the use of technology, machinery, food production and livestock management; all skills that are not easy to 'learn on the job'.

Teachers and parents need to help students explore the skill set required for future employment. When high school students start to talk about their possible careers, this is linked to their identity formation (Hay & Ashman, 2003). Talking with students about career options and taking students to career markets and to open days conducted by universities and colleges is important for all students. Having the adolescents talk about their future choices, to meet with employers, and to do work experience, all helps in the formation of the students' aspirations. Teachers can help by having past students talk to the present primary and secondary school students about their transitions and their educational and career progress. Information from past students may be seen as more authentic to the students still in the primary and secondary classrooms.

Having the adolescents talk about their future choices, to meet with employers, and to do work experience, all helps in the formation of the students' aspirations.

The challenge of poverty

The Tasmanian survey data suggest that students from more socially and economically disadvantaged schools can have reduced educational achievement and aspirations. This is not an unexpected finding and there "is also an unacceptable link between low levels of achievement and educational disadvantage, particularly among students from low socioeconomic locations" (Gonski, 2011, p. xiii).

Previous research has also demonstrated that a family's socioeconomic status and parents' level of education have an influence on their children's educational plans, aspirations, and expectations (Lamb et al., 2004). Students from low SES communities may also fail to connect with further and higher education institutions because of cost, transport, timetabling, and resource limitation (Watson et al., 2013) such that students from low SES backgrounds have lower school retention rates (Abbott-Chapman, 2011).

To date, policy makers have made it compulsory for students to stay in schooling until the age of seventeen years. This policy is based on the evidence that leaving schooling too early disadvantages the person in the employment market and it has long-term negative economic and social consequences for that individual (Gonski, 2011). It is a false economy in the long-term to have students leave school unprepared for the world of work, particularly when that work is often low paid and casual. Finishing high school to the equivalent of Year 12 provides the young person with a greater number of future options. Students completing the equivalent of a Year 12 education, needs to be the norm in the Australian context, and for those students unable to achieve this aspiration, meaningful support and alternative educational programs need to be provided (Cranston, Allen, Watson, Hay, & Beswick, 2012).

Conclusion

This research identified that: (1) parent support; (2) students' English achievement; (3) teacher support; (4) students' level of confidence about school; and (5) students' mathematical achievement all impacted on students' levels of educational aspirations.

Understanding the factors that either enhance or mitigate against students having positive educational aspirations is important for both policy makers and educators. Such information facilitates the establishment of a data-driven policy framework and the formation of more targeted interventions and programs. Understanding the factors that influence students' level of educational aspirations also helps in the formation of a whole of government response to students with low educational aspirations.

The findings reported are based on Tasmanian research but they have implications to other national and international educational settings. The findings highlight that the students' educational aspirations are formed over time and the factors are multidimensional. Therefore, policies and practices to ameliorate against students' forming low levels of educational aspirations also need to be enacted over time and to be multidimensional.

Acknowledgements

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12

Students' school engagement:
'stickability', risk-taking,
educational attainment



Students' school engagement: 'stickability', risk-taking, educational attainment

Joan Abbott-Chapman



Research findings on the association between students' school engagement, study persistence, post-compulsory participation and attainment are discussed in relation to the need to raise Tasmania's post-Year 10 retention rates and transition through to University. Findings reveal the association between measures of students' school engagement at primary and secondary school level with their educational, occupational and health status through to adulthood up to 20 years later. These findings are supported by ongoing analysis of the inhibiting influence of higher levels of students' school engagement upon their levels of participation in health compromising risk activities including drinking alcohol, smoking cigarettes and use of illicit drugs. Factors that encourage students' school engagement are discussed in the paper along with some of the implications for action in schools and the wider community.

Tasmania's highly dispersed population, rurality and low ranking on a number of socio-economic status (SES) and health indicators are associated with low rates of Year 12 completion (ABS 2014a, 2014b). These result in the fragmentary post-school 'mosaic' of study/work and unemployment destinations of many disadvantaged and rural students (Abbott-Chapman 2011; Abbott-Chapman & Kilpatrick 2001; Kilpatrick & Abbott-Chapman 2002).

Although parental education remains the leading factor influencing students' post-compulsory participation (Lamb et al. 2004; OECD 2014), a growing body of research suggests that student engagement, fostered by positive classroom experiences and school social capital, may modify disadvantaged family background factors (Gorard & Huat See 2011; Semo & Karmel 2011).

Strategies to increase students' school engagement and post-compulsory education and training participation in Tasmania are being developed at a time when the knowledge economy demands an increasingly educated workforce, and when employers are seeking individuals who demonstrate flexibility, creativity and enthusiastic engagement with new learning in the workplace. Also required are verbal and written communication skills and the ability to apply theoretical knowledge in practice (Abbott-Chapman 2003; McWilliam 2008; Wyn 2009). Transformative education helps students to acquire such skills, assisting them not be put off by setbacks and to become "robust learners who can stick at a task" (McWilliam, 2008, p. 120).

Students' school engagement: 'stickability', risk-taking, educational attainment

The influence of 'stickability' on long-term retention

'Stickability' was a quality that Abbott-Chapman, Hughes and Wyld (1991) used to describe students whom their Model of Educational Handicap predicted would not pursue their studies beyond Year 10 but who did so against the odds. The model included measures of school assessed ability potential (SAAP), socio-demographic background, type of school attended at Year 10 and gender. Within the longitudinal cohort study of 14,579 Tasmanian students who left Year 10 in 1981 and 1986, 16 per cent of them who had been predicted by the Model of Educational Handicap not to go beyond Year 10 did so, some through to University. Quantitative and qualitative data analysis showed that school engagement and 'career' rather than 'experimental' or 'custodial' retention were deciding factors in study persistence, along with the encouragement of an inspirational teacher. Students with stickability exhibited high levels of school engagement and attainment, despite socio-economic and rural disadvantage. These students reported the influence of named primary, secondary and post-secondary teachers who influenced them to go on with their studies after Year 10.

The nominated teachers were then surveyed, and their characteristics and teaching styles analysed. Their enthusiasm for their teaching, high expectations for students' learning, cultivation of mutual respect between students and teacher, and a deep understanding of students' diverse learning needs, were found to raise students' aspirations for further and higher education. These qualities were demonstrated despite the increasing intensification and broadening of the teacher's role, increased administrative burden and teacher stress. International studies confirm that the student/teacher relationship, teachers' expectations for their students' attainment, and the quality of classroom interaction with teachers and peers, are important in encouraging student engagement and attainment from the early years of schooling (Department for Education UK 2003; Hattie 2009; Ladd & Dinella 2009).

Positive emotions are related to feelings of school connectedness, sense of belonging, motivation to learn, self-concept as a learner and study persistence



Students' school engagement: 'stickability', risk-taking, educational attainment

The development of the School Engagement Index

School engagement has been identified as significant within an investigation of modifiable factors associated with children's long term health and wellbeing, conducted by an interdisciplinary team at the Menzies Institute for Medical Research and the Faculty of Education, University of Tasmania (Abbott-Chapman et al. 2012, 2013). Of the three main dimensions of school engagement that have been identified by researchers over the last 30 years the 'affective' or emotional dimension was chosen as the focus of this research.

Affective school engagement, expressed as enjoying or liking school, is closely related to cognitive and behavioural dimensions of school engagement, that are expressed in such things as performance of academic tasks, school attendance and classroom behaviour (Martin 2007). The importance of encouraging students' enjoyment of school, starting from the earliest years, has increasingly become the focus of international research and policy, as a driver of student attainment and of long term participation. This is part of a growing research trend that recognizes the role played by emotions, positive or negative, in the classroom interaction of students with teachers and peers (Frenzel et al. 2009; Frenzel & Stephens 2013). Positive emotions are related to feelings of school connectedness, sense of belonging, motivation to learn, self-concept as a learner and study persistence. Expressions of enjoyment or boredom at school are indicative of more deep-seated feelings experienced within the school environment that affect the ability to learn.

The School Engagement project is part of much larger national, longitudinal Childhood Determinants of Adult Health (CDAH) study which analyses factors affecting childhood and adult health, especially cardiovascular health. The research began in 1985 with the Australian Health and Fitness Survey (AHFS). A representative national sample of 5,472 school children aged nine to 15 years responded to the 1985 questionnaire and of these 2,334 completed follow-up questionnaires in 2004–6, when they were aged between 26 and 36 years. Of these 1,622 had completed all data relevant to the longitudinal analysis of school engagement. Previous analysis demonstrated that despite loss-to-follow-up those remaining in the study in adulthood are similar to same-age peers in the general population on a number of variables. The AHFS questionnaire included questions about health activities and beliefs, school-based measures of academic attainment, and attitudes to school. The adult questionnaire included questions on health, education, occupation and socio-economic status.

As part of the investigation, an additive index, named the School Engagement Index (SEI), was constructed from student responses to two questions in the 1985 survey on their degree of enjoyment of school and of boredom. The associations between the SEI and a range of variables in childhood and adulthood were analysed. Potential covariates included age, sex, markers of socio-economic status in childhood, personality and school-level variables.

Students' school engagement: 'stickability', risk-taking, educational attainment

School engagement, student health and risk-taking activities

Logistic regression was used to estimate the odds of respondents aged nine to 15 years achieving Year 12 or higher education or training and achieving higher status occupations up to 20 years later. Findings revealed that each unit of school engagement was independently associated with a 10 per cent higher odds (OR 1.10 95% CI 1.01, 1.21) of attaining post-compulsory education during the 20 year period, not necessarily direct from school. Maternal education, self-concept as a learner and motivation to learn, significantly predicted achieving post-compulsory school education. Higher school engagement was also independently associated with achieving higher status occupations. Importantly, this engagement was independent of a host of background factors, including childhood teacher-rated academic attainment, whose influence appears to have waned over the 20 year period, unlike the influence of school engagement.

Pathway analysis suggested that engagement precedes attainment. School-level variables were limited because the 1985 survey was predominantly about health and fitness. However, findings suggest that students' active involvement in a number of curricular and co-curricular activities, including physical education, sports, and music, is associated with higher levels of school engagement. Other research confirms that music and the performing arts foster engagement, especially among disadvantaged and Indigenous students (Caldwell & Vaughan 2012; Costa & Kallick 2000)

The links between socio-economic status, educational attainment and health are well known (Gall et al. 2010). The link with school engagement is less well known. The SEI developed in the CDAH study was shown to have a robust predictive capacity with regard not only to educational outcomes but also self-rated health and health behaviours in adulthood (Abbott-Chapman et al. 2012). Importantly, the association between childhood school engagement and adult health behaviours were found to be independent of 1985 school attainment measures. Each unit of greater school engagement was associated with greater avoidance of health risk behaviours—with a 32 per cent lower odds of being a regular smoker (OR 0.68 95% CI 0.64, 0.75) and a 19 per cent lower odds of being a consumer of alcohol (OR 0.81 95% CI 0.64, 0.72). These associations remained significant and were only marginally attenuated by including markers of socio-economic status.

These findings are supported by re-analysis of data from a Tasmanian survey of 954 Year 11 and 12 students' risk perceptions and activities, using the SEI. Previous findings from that research have already been published (Abbott-Chapman, Denholm & Wyld 2008). Preliminary, as yet unpublished, findings from the new analysis suggest that higher levels of school engagement, as measured by the SEI, are significantly associated with aspirations for further and higher education and with lower levels of risk-taking activities such as binge drinking, smoking cigarettes and use of illicit drugs. Findings also suggest that membership of sports, hobbies and music clubs, both within and outside school, is associated with lower levels of risk-taking. These findings have important implications for students' classroom participation and learner self-concept. National research has shown that risky, health compromising, activities and poor classroom experiences may predict students' Year 12 completion more accurately than traditional SES background factors alone (Homel, Mavisakalyon, Nguyen & Ryan 2012).

Students' school engagement: 'stickability', risk-taking, educational attainment

Conclusions and implications for policy and practice

School engagement, as measured by the SEI in childhood at ages nine to 15, has been shown to be associated with attainment of educational, occupational and health status outcomes through to adulthood up to 20 years later, while the influence of socio-economic and rural background factors appear to attenuate over time. This suggests that encouraging students' school enjoyment and engagement in learning, and their ability to stick at a task, from the earliest years of schooling, is likely to impact upon their educational participation and attainment through to adulthood. In brief, factors associated with students' school engagement and enjoyment of learning include the expectations and encouragement of inspirational teachers; positive relationships between students and teachers and students and peers; a rich school curriculum that includes learning opportunities in the visual and performing arts, physical and outdoor education and sports. Other national studies have also found that an achieving school climate and the development of positive school cultural and social capital may help to compensate for disadvantaged student backgrounds in ways that encourage student engagement. While opportunities for on-line learning may help to shrink social and geographical distances that represent barriers to student participation in post-compulsory education, research has shown that face-to-face contact with teachers and student peers is important in enriching the learning experience, through 'blended' teaching methods, especially for disadvantaged and indigenous students (Stack, Watson & Abbott-Chapman 2013).

The demonstrated long-term effects of school engagement on students' post school educational and occupational careers through to adulthood has implications not only for post-compulsory education and training of straight-from-school students but also for mature age students, as 'second chance' students. This finding emphasises the importance of strengthening the relationship between post-school vocational and academic learning pathways within the mosaic of study and work. Closer links between Technical and Further Education (TAFE) and the University, plus preparation and support programs that ensure successful transition into higher education are already achieving positive student outcomes (Abbott-Chapman 2006; Abbott-Chapman 2011). As noted in the introduction, findings on the long-term impact of school engagement underline the relevance of work integrated learning (WIL) at every level of education and training.

Findings on the association between school engagement and health compromising risk activities in childhood and adulthood also suggest the benefit of increased emphasis on linked-up health and education policies and services for children and young people within holistic preventive health programs and initiatives, along with more interdisciplinary and longitudinal research to support such programs. The growing focus in schools on student wellbeing programs is a positive expression of this kind of holistic approach. The role of classroom teachers in fostering student engagement within an achieving and supportive school culture is confirmed by the research and highlights the need for their continuing community recognition and support.

School provision of opportunities for students to participate in wide curricular and co-curricular options, including Physical and Outdoor Education, Sports and the Arts, especially Music, helps to encourage school engagement, especially of disadvantaged students. However, where provision of such activities within schools is limited by human and financial resource constraints, especially in rural and regional areas, school partnerships with local community clubs and associations may help to provide students with rich learning opportunities not otherwise available. Encouragement of these sorts of collaborative initiatives exemplify a whole-of-community approach to raising Tasmanian levels of post-compulsory participation and attainment.

13

Opening the gate:
improving mathematics
attainment

Opening the gate: improving mathematics attainment

Kim Beswick
and
Rosemary Callingham



Mathematics education in Australia faces two inter-related and hitherto intractable problems. First, over the past ten years Australia's performance in mathematics has declined in real terms on every international measure: Trends in International Mathematics and Science Study (TIMSS); Programme for International Student Assessment (PISA); and Programme for International Assessment of Adult Competencies (PIAAC). National testing tells us that Tasmania lags behind much of Australia and increasingly so as students progress through school. Second, Australian students report disliking mathematics and are voting with their feet in choosing less demanding mathematics options when they have the choice in senior secondary school. This state of affairs hinders Australia's development and innovation in a variety of fields, and limits the options of individuals because mathematics is a 'gatekeeper' subject (Blomeke, Suhl, Kaiser, & Dormann, 2012). Because of its gatekeeper status, mathematics has particular importance in relation to issues of educational attainment more generally.

Even when it is not an explicit prerequisite, higher level mathematics is necessary for success in many of the Science, Technology, Engineering and Mathematics (STEM) courses that are needed for technical careers. Even though more students than ever before are studying mathematics at Years 11 and 12 the popular mathematics courses are those that are the minimum requirement for tertiary entrance, and not the 'intermediate' and 'advanced' courses needed for participation in STEM related careers. Leaving intervention until the later years of school, however, is leaving it too late. Unless students have engaged with, and been successful in mathematics they are unlikely to choose pathways that lead to higher levels of mathematics and science (Australian Association of Mathematics Teachers, 2014).

A variety of solutions has been proposed to address this situation. These have ranged from preferential treatment of mathematics teachers, improved training of pre-service teachers, and making mathematics compulsory in Years 11 and 12. The problem is not a simple one and no single solution is likely to reverse the current trend. Sustained attention at every level is required. For Tasmania, being relatively geographically small, having a single university, and having a community increasingly united in its desire to improve the state's educational attainment places it well to address these issues more effectively than might be possible elsewhere. Teachers, schools and systems, as well as the broader community, are implicated in students' perceptions of their mathematical ability, and their mathematical attainment. First, teachers' beliefs about the capacities of different groups of students, or individual students, to learn mathematics influence the opportunities to learn that are provided, and the subtle messages that students receive about what constitute appropriate aspirations for them. Second, students' opportunities to learn in a meaningful way the mathematics that opens gates to future options may be limited by the knowledge and mathematics specific pedagogic skill of their teachers.

Students report that mathematics is boring, not relevant and too hard. Many, including those experiencing success with the subject at school, state that they do not like mathematics—nearly half of all Year 8 students have said this, although the same students acknowledge the subject's importance and utility (Thomson, Hillman, & Wernert, 2012). Students begin to see themselves as being 'non-mathematical' from as early as Year 3, and often these perceptions are reinforced by societal attitudes. It is not uncommon to hear comments such as "I was never any good at maths" although the same comment would rarely be made about literacy. This situation is likely to affect students' future subject, and ultimately career, choices. Students may aspire to achieve at high levels but if they think that they cannot do mathematics they are likely to believe that they are less capable of attaining challenging educational goals even in subjects other than mathematics, and hence reduce their aspirations. The gates to some areas of higher educational attainment become closed.

We know that Tasmanian students in schools with a relatively high Index of Community Socio-educational Advantage (ICSEA) report greater teacher support, more positive educational aspirations generally, higher perceived ability and capability in English and mathematics, and greater parental interest and encouragement in relation to school work than their peers in less advantaged schools. Similarly, teachers in schools with relatively high ICSEA were more inclined than their peers in lower ICSEA schools to regard their students' self-efficacy, valuing of education, ability, and parental support positively; and to believe that teachers in their school were supportive of students, including having high expectations (Beswick, 2015). These differences are important because students' perceptions of their ability to succeed in mathematics are related to their achievement, and teachers influence how students see themselves as mathematics learners (Levpušček, Zupančič, & Sočan, 2012). Specifically, Levpušček, Zupančič and Sočan found that students' felt better about their ability to learn mathematics and achieved better results when they believed their teachers gave them demanding work, expected them to understand it, and worked hard to help them to learn.

Opening the gate: improving mathematics attainment

In relation to mathematics, Beswick (2007/2008; in press) found that teachers had different expectations of students depending on whether or not they saw them as having difficulty learning mathematics. They also considered different sorts of mathematics tasks appropriate for these groups of students. For students perceived as 'good' at mathematics, appropriate tasks were described as challenging, open-ended, and involving problem-solving, whereas for those they saw as struggling, appropriate tasks were relevant to students' interests and provided opportunities for success (Beswick, in press). Of course, there is nothing wrong with having relevant tasks and experiencing success but teachers also appeared to define success differently for students depending on their perceptions of their ability.

Achieving understanding of mathematics is regarded as a more appropriate goal for 'good' mathematics students than for those who experience difficulty (Beswick, 2007/2008). If students believe that they are being given less demanding work and are not expected to think hard they are unlikely to come to see themselves as capable mathematics learners and hence, even though they might succeed on the simple tasks they're given, they are unlikely to make real advances in their mathematics achievement. The current Australian Curriculum: Mathematics mandates that, in addition to content, all students develop mathematical proficiencies—reasoning, fluency, problem-solving, and understanding—but there is evidence that some teachers see these as largely the province of capable mathematics students whom they also characterise as exhibiting these proficiencies (Beswick, in press). Professional learning that focuses on how lower attaining students might be helped to develop their understanding of mathematics and their ability to reason mathematically and solve problems appears to be needed.

High academic expectations and beliefs in the capability of all students are essential but are not sufficient to ensure that students achieve their potential in mathematics. Teachers have to teach mathematics in ways that engage students and keep them learning mathematics at the highest level possible for as long as possible, and this work requires more than content knowledge (Senk et al., 2012). Many studies show that there is a very low or no relationship between teachers' mathematics qualifications and their students' success (Mewborn, 2001). On the other hand, there is a growing body of evidence that suggests that teachers increasingly are teaching mathematics with little or no mathematical knowledge (AAMT, 2014). These teachers may be highly-skilled pedagogues but lack the underpinning content knowledge to build students' confidence and knowledge in mathematics. The blend of content knowledge and pedagogy, termed pedagogical content knowledge (PCK), that is unique to teachers of mathematics affects students' outcomes (Baumert et al., 2010). It is not so much the level of mathematics that the teacher has studied, or can do, that is the issue so much as the way in which the teacher understands mathematics.

This specialised mathematical knowledge is a rapidly developing area of research. Shulman (1987, p. 8) coined the term 'pedagogical content knowledge' (PCK) as:

the blending of content and pedagogy into an understanding of how topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction. Pedagogical content knowledge is the category most likely to distinguish the understanding of the content specialist from that of the pedagogue.

Since then there have been a number of studies attempting to describe and measure PCK. All of these studies recognise the complexity of PCK, combining content, curriculum, appropriate representations, understanding of different students as groups and as individuals. Consider this exchange that happened in a Year 8 classroom towards the end of a unit about 3D shapes:

Student:

We live on a circle, don't we?

Teacher:

Are you sure?

If we cut the earth in half we'd see a circle...

Do we live on a circle?

Student:

Hang on, no, it's a...

It's a cubic circle.

The student had a sound conceptual understanding of a sphere but lacked the vocabulary to describe it. When the student made the original statement, the teacher could have simply disagreed and said it was a sphere, or could have ignored the remark altogether. Instead she chose to probe further revealing an unexpected depth of understanding.

All teachers draw on PCK when thinking on their feet, making rapid in the moment decisions about matters such as whether to respond to a student's legitimate question or to acknowledge it and return to it later; when to change the activity or pace of the lesson; how to deal with a lesson that, although well-planned is not proceeding well; or what to do when a lesson is cut short or disturbed because of some unexpected event such as a fire drill. These acts may seem to be small and trivial in themselves, but they have a cumulative effect on students' learning of mathematics, interest in mathematics, and motivation to study mathematics.

Teachers make a difference, as has been shown by Hattie (2008). Investing in teachers will ultimately help students of mathematics. This investment, however, needs to go beyond technical solutions. Professional learning is a key component, obviously, but this must be backed up with recognition that teachers are specialists, and professionals. In the Scandinavian countries, for example, there is almost no external testing, and what there is addresses rich, deep mathematical investigations judged by classroom teachers rather than externally imposed tests. Moves to reward teachers on the basis of student performance, as found in the United States, for example, has not improved performance in mathematics, but has led to distortion of the curriculum, and rorting of the system (Berliner, 2011).

There is no silver bullet, but this is our wish list for mathematics education:

- teacher education courses in which sufficient time is allowed for pre-service teachers to develop the requisite knowledge, pedagogy, confidence and passion for teaching mathematics well;
- policies that allow for the employment of all newly graduated well-qualified mathematics teachers even if current overall teacher numbers are sufficient;
- ongoing professional learning for all teachers of mathematics that develops excitement and interest in mathematics and its teaching and learning as well as building teachers' capacities to help all students to maximise their achievement;
- recognition that mathematics should be 'messy'—students at all ages and apparent levels of mathematical understanding are allowed to deal with real mathematical problems rather than learning a series of disconnected procedures;
- mathematics classrooms where all students are engaged in argumentation and discussion about mathematics, and expected to think hard and struggle to make sense of important mathematical ideas;
- mathematics classrooms where students' own mathematical ideas are published, displayed and discussed;
- schools and systems that acknowledge the importance of mathematics and allow students to consolidate their developing understanding and revisit earlier concepts as they are needed; and
- recognition that Tasmania is uniquely positioned to address the issues that we have outlined and to lead the nation in doing so.

Opening the gate: improving mathematics attainment

Tasmanian teachers, schools and students are as good as anywhere else but we need to aspire to be better than that. Efforts are needed and are becoming evident at every level. For example, from 2016 the University of Tasmania will offer prospective primary school teachers the opportunity to graduate with a major in mathematics education and will also provide a new Bachelor of Education (Science and Mathematics) for prospective secondary teachers that will include the study of mathematics to second year university level. This secondary teaching course aims to integrate learning advanced content with developing PCK. The Tasmanian Department of Education has increased its commitment to mathematics teaching related professional learning in recent years. Politicians, business leaders and the broader community have all acknowledged the need to improve Tasmania's educational attainment and there are efforts in progress to better coordinate and evaluate the diverse initiatives that have been instigated in communities across the state.

Still, there is much more to be done. Commitments need to be for the long haul and funded appropriately. A focus on mathematics is vital because of its crucial status as a gatekeeper. Tasmania needs all of its citizens to be mathematically confident and competent so that they can negotiate a world in which quantitative information is increasingly important. Exploiting Tasmania's natural advantages to develop industries that will drive our economy into the future are reliant on the availability of employees with well-developed mathematical skills including those with STEM qualifications that include sophisticated mathematics. Mathematics, taught well, has the potential to open the gate to opportunity for individuals and for Tasmania.

Tasmania needs all
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14

Tasmania's hidden
dragons: tackling
education
participation
equity beyond
Year 10



Tasmania's hidden dragons: tackling education participation equity beyond Year 10

Deborah Brewer



Introduction to the research

'Crouching Tiger Hidden Dragon' (Wu hu zhan long) is a Chinese idiom in which the words 'Tiger' and 'Dragon' directly refer to people with special hidden talents. This idiom reminds us never to underestimate anybody's abilities. The research to be discussed relates this message to post-Year 10 education and training aspirations of a sample of 22 Tasmanian Year 10 students. The PhD research was conducted between 2012 and 2014. Twelve of the students who participated in the research attended schools in communities classified as being of low socio-economic status, and were considered by their teachers as ambivalent toward future education participation, including enrolling and completing Years 11 and 12.⁵

The research is significant at a time when educators and policy makers throughout Australia are concerned with educational disadvantage and are collaborating with researchers to find ways to increase the participation rate of young people in education up to Year 12. Socio-economic disadvantage, cultural attitudes, and the stress of living in impoverished communities places many Tasmanian young people at higher risk of discontinuing education participation after they complete Year 10.

The research framework examined the students' education participation from a humanistic perspective (Freire, 1990). This theoretical framework values and conceptualises educational identity potential, human worth, participation and inclusion (Freire, 1985). The research applied an ecological lens (Bronfenbrenner, 1979) to the problem, seeking to reveal how educational choices are influenced by the social ecology of students' life experience, and how social and cultural patterns and institutional systems influence opportunity, participation choices and perceptions of educational capability. The ecological approach asks "How does identity influence education participation and how does a new perspective on education participation influence identity?" The methodology aimed to measure if young people who are less certain about engaging in education depict their identity differently to those students who are more certain about engaging. An innovative methodology was adopted in order to explore this possibility.

Childhood and adolescent life experiences and life events can, in a range of circumstances, create situations of risk or adversity, and these circumstances and experiences may lead to detrimental or disadvantageous identity construction and development. Disadvantage, through unknown, unrealised or lost opportunities and limitations can also inhibit or even disable identity development. Conversely, self-knowledge of personal identity strengths and a vantage point to systemic opportunities may assist in counteracting the effects of socio-economic, class and cultural disadvantage (Avi & Hanoch, 2012).

⁵ The status of each school in the research was determined by applying the Australian Curriculum Assessment and Reporting Authority, My School website SES calculations (Australian Curriculum Assessment and Reporting Authority).

Tasmania's hidden dragons: tackling education participation equity beyond Year 10

The complexity and dimensional range of identity are important (Marsh, 1990). These aspects of identity are unique to each person and provide assets of both capacity and purpose. The complexity and dimensionality of identity can become disabled in life by limited and unsafe life experiences and by lessened cognitive and physical capacities. The robust or fragile nature of identity is also built on perceptions and beliefs of self-efficacy, self-esteem and confidence.

The educational dimension of identity takes on particular importance for young people at education transition phases (Best, 2011). Limitations imposed by macro systems, stressful living circumstances and participation barriers created by unsafe experiences impact on some students' opportunities and choices in secondary education participation. The importance of education as a dimension of identity (to be played out as enhanced social and economic opportunities in life) is critically revealed at the point of educational transition between junior and senior secondary school when young people begin to make more specialised choices around education participation. This period is also the time when young people begin to make decisions about their independence, further study, and work participation (Coll & Falsafi, 2010).

Future educational participation may pivot here for educationally ambivalent students. It is critical at the junction between Year 10 and Year 11 that ambivalent students are provided with the opportunity to reflect on their interests and strengths and on the construction of their identity (particularly their educational identity). The process of facilitated self-reflection provides young people with insight into how they like to learn and an understanding of how they can utilise their existing interests, strengths and capacities to achieve educational outcomes. This self-knowledge will assist them to focus future learning participation and align participation decisions with aspiration.

Equally important to identity development in facilitating continued participation in education post-Year 10 is making transparent educational systems, ideologies and discourses. An uncomplicated knowledge of how the education system operates can influence participation choices. Critical systemic knowledge can potentially reveal to students concealed education participation opportunities.

When adolescents can cultivate greater self-knowledge around their identity, they are better equipped to make education choices and participation decisions.

The research implemented an intervention at this juncture in education participation when students transition between generalist subjects to focus on more specialist subjects. The brief intervention focused on both identity development and the provision of systemic information. The five-day intervention program was delivered prior to the end of Year 10 and sought to positively influence self-identity, educational identity and future educational participation decisions.

When adolescents can cultivate greater self-knowledge around their identity, they are better equipped to make education choices and participation decisions. Increased participation provides choice, and through choice, alternative opportunities exist to build personal agency, social and educational capital, in a range of settings, both formal and informal. Educational capital is developed both formally and informally. Informal education capital is developed through social, cultural and personal life experiences, and formal education capital through learning and training attainment outcomes and qualifications. For adolescents, knowing one's strengths and personal assets facilitates active purposeful education participation to accumulate educational capital both formal and informal (Burrow & Hill, 2011). This research was designed to identify the components of adolescent self-knowledge that assist in the process of educational decision-making.

Tasmania's hidden dragons: tackling education participation equity beyond Year 10

Research Methods

The research considered the experience of transition through two different ecological lenses. The first part of the research sought to understand transition from the perspective of the individual by exploring the relationship between identity, transition and future education participation. The second part of the research looked at the high school environment and explored systemic factors that influence participation. The method applied to gather the individual student's perspective was arts based and visual. This paper discusses the first part of the research, which investigated students' educational participation as an aspect of identity. The following definition of identity was used by the study. This definition was communicated by the researcher in the script when describing the concept to adolescent student participants.

"Think about your life, who you are, what your life is like and what things that are important to you."

Identifying an appropriate technique to research adolescent educational identity from an asset-based perspective posed a significant qualitative methodological challenge (Rhee, Furlong, Turner, & Harari, 2001). The data needed to reveal an aspect of participant's identity that may be notable by its absence. To overcome this challenge, the research developed a new technique to collect the data. The method invited participants to construct a visual depiction of their identity using icons to create a collage. A collage, once created became what is called an identity-gram. Four parameters of the visual identity depictions were then analysed to measure: (1) dimension, (2) complexity, (3) absent representations, and (4) present representations of identity, before and after a ten-day period.

The visual approach to data collection provided participation equality enabling adolescent young people from a broad range of different circumstances and backgrounds to participate. The visual approach counteracted obstacles to participation because of low literacy or limited capacity or confidence to express personal opinion through oral communication. The approach provided the research with a lens to view individual differences between students and differences related to different socio-educational backgrounds.

The use of a visual approach has several advantages over written forms of data collection for research concerned with revealing aspects of the identity, particularly in relation to research conducted with young people (Prosser, 2012). Making a collage about themselves is enjoyable for young people; therefore they are more likely to actively engage in the research. The process invites participants to provide a snapshot, a here-and-now account, of who they are and what they consider important. The snapshot approach provides young participants with the freedom to express who they are creatively and lessens restrictive perceptions around permanency. A sense of freedom from permanency is particularly important during adolescence when young people are actively exploring, constructing and reviewing their personal identity. Time, space and place-specific identity concepts accommodate the frequent social and interest identity changes that are occurring during this developmental period (Chickering & Reisser, 1993).

The method appealed both because it is creative and uses icons. Icons are semiotic representations familiar to adolescents. Many icons young people feel significant emotional attachment to (Michel & Andacht, 2005). They are an important part of their lives. For example, the icons used by Facebook and YouTube were popular with young people as participants. Visual methods provide a way of depicting and personalising identity that is inclusive of young people with low literacy levels and less confronting for those reluctant or unwilling to engage in lengthy verbal communications.

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Research Findings

Each participant's identity-gram was unique. The researcher provided each participant with the same 75 small individual symbol and picture icons from twelve dimension categories: animals, relationships, communication, relaxation and recreation, education, food, money, transport and travel, work, nature, household and health. Figure 14.1 provides an example of a visual identity-gram. This graphic was made by Year 10 student ambivalent about continuing his participation in education through Years 11 and 12, who chose not to take part in the brief intervention offered to participants in the research.

Many of the interests and aspirations depicted by this student were common to other students who took part. The tool box indicates an interest in tools. Perhaps this student aspired to undertake training in a trade at some point in their future.

When working with identity-gram data and preparing the data for analysis, a key qualitative enquiry coding rule was applied. This rule of polysemicity accepts multiple personal meanings. That is, there may be a range of possible meanings behind each participant's use of the icons, however it is not necessary to know or check individual meanings with participants in order to analyse the data because the icons used in the research method represent and depict culturally and socially understood and accepted representations or symbols of activities or objects. For example in an identity-gram the concept of education can be depicted by icons that represent both the activity of learning (for example, a calculator or pile of books) and objects associated with education achievement outcomes (for example, a certificate or graduation hat). These activities and objects hold common understanding within the specific Australian social cultural context that they exist. The intention of the visual data analysis was not to interpret multiple possible personal meanings that may exist behind the use of individual icons. Instead, the analysis intent accepts that the use of specific icons by an individual means that the activity or object the icon represents is important and valued by that individual person simply because they have chosen to use it.

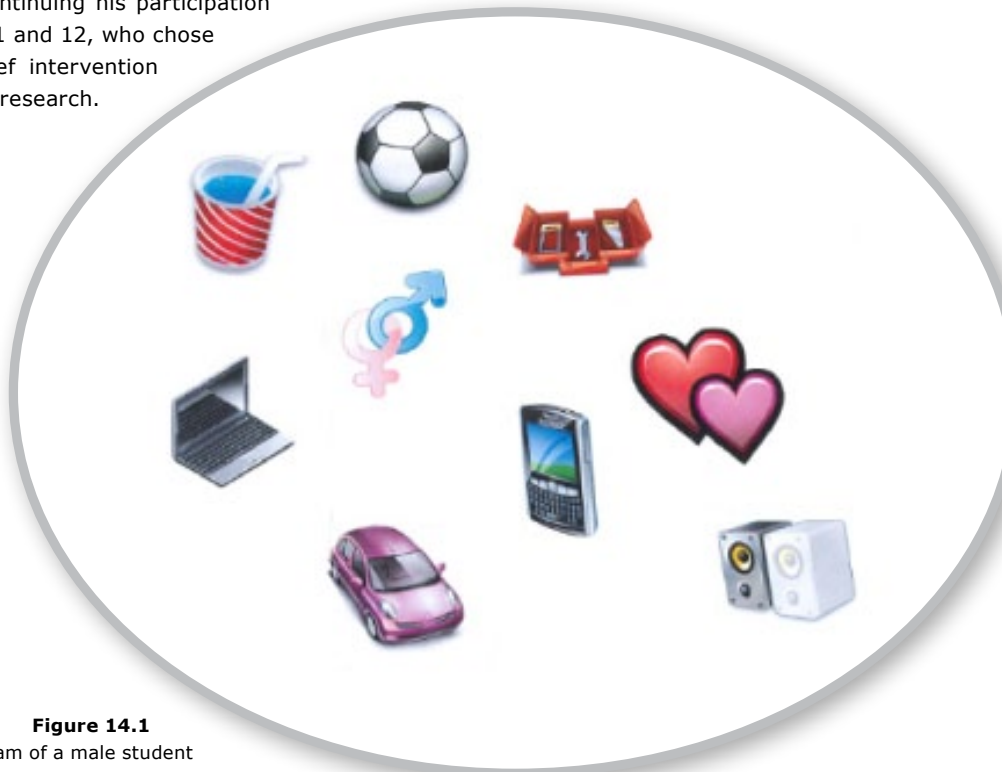


Figure 14.1
Identity-gram of a male student

Tasmania's hidden dragons: tackling education participation equity beyond Year 10

The researcher offered all participants a five-day introductory vocational course. Twelve of the 16 students who took part in the case study took part in this 'intervention' short course. Its purposes were to give participants a better understanding of the significance of the education participation choices they were making, and to provide critical reflection on what personal experiences and understandings have had influence on their participation decisions. The course also invited students to reflect on their personal identity assets and consider these in determining their Year 11 participation choices and decisions.

The analysis of the visual data showed significant differences between the students' depictions of their identities. As a cohort the students from the 'intervention group' in the case study showed less complexity in the visual depictions of their identity and depicted fewer dimensions of identity. The identity dimension of 'education' was depicted significantly less overall by the intervention group and less also in relation to how or if they depicted education in the future; this illustrates the lower importance given to education by this group.

Identity vulnerability was clearly evident in many depictions made by participants in the intervention group. When few dimensions of identity were depicted, identity was less complex. Low complexity of identity may indicate future vulnerability towards the continuation of active and purposeful senior secondary education participation because the understanding of identity may be inadequate to foster and support specialised strengths-based participation. This vulnerability becomes more acute when participation options are limited and geared more towards academic streams than to vocational training options. Any vulnerability or marginalisation is of concern when students are at a point of educational transition because this is when critical decisions regarding continuation of participation are being made.

The findings reveal new understandings around the relationship between identity and education participation. The findings also indicate that an intervention offered in Year 10 can influence educationally ambivalent students' attitude to education participation. The intervention was received positively in terms of engagement and influenced how they might participate in education in the future.

Tasmania's hidden dragons: tackling education participation equity beyond Year 10

Discussion and conclusions

The educational consequences of less complexity and fewer dimensions of self-identity are of concern. There may be implications in relation to education participation. Students with less complex identities may be more vulnerable and less likely to engage when they enter a phase in their education where identity dimensionality strength and complexity becomes assets enabling participation and creating a focus for specialised study and skill development. Within identity lie personal resources and strengths that help inform, make more meaningful and reveal education participation options.

Long term and cumulative enhancement to life opportunities is provided when students participate in senior secondary programs. Options across a broad range of social, cultural, vocational and academic dimensions are important here. Participation is the key. School activities and subject choices that span across this range of academic, vocational, recreational and arts programs facilitate broader and more equitable access for all students. When a critical mass of students is co-located and when a broad range of recreational, arts, sports, vocational training and academic subjects and courses are provided, young people can choose personally meaningful and purposeful education participation options. The more young people participate the more they develop understandings of their identity strengths and the more they can take advantage of opportunities to develop identity capital as an asset and future resource. For educationally ambivalent students senior secondary participation becomes purposeful when learning is personally meaningful and aligned to their immediate needs and future (Yasui, 2004).

The research found that an important first step in engaging ambivalent and disadvantaged Year 10 students may be to provide them with specific information on how the Australian education system offers pathway options through the Australian Qualification Framework (AQF) and on how they can access a range of employment focussed learning options in Years 11 and 12 alongside other subject options as an achievable transition to post Year 12 vocational and trade training at AQF level IV and above.

Longitudinal use of the visual identity method may provide future research the potential to see how identity remains stable or changes over time. The technique could also be used to track participants' changing identity pre and post an educational program or intervention and/or as they continue on through tertiary studies, vocational training and enter the workforce.

Acknowledgment

This paper has benefitted from feedback from Professor Joan Abbott-Chapman.

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Reflections from
session chairs,
panellists, and
stakeholders



The educational
outcomes that all
citizens of Tasmania
deserve and expect



Stephen Conway

When something is in transformation, by default you have to accept there is a starting point and the destination should be describable.

When we talk about transformation of education in Tasmania, and particularly when we focus upon the schooling system and its outcomes, I think all readers will accept that our starting point is lower than we would want or we could be satisfied with. The destination in our transformation can be described in many ways, and during the Education Transforms Symposium many different views were put forward. The common theme was, however, that we must do much better.

To describe the transformation target for schools I have chosen for this reflection to use the State Government's aspirational target set in March 2014:

That by the end of six years of a majority Liberal Government, Tasmania will be at, or above the national average in every single NAPLAN measurement and will meet the national benchmarks in reading, writing, mathematics and science.

Education is the cornerstone of both social and economic reform in Tasmania, and participation, retention and engagement of our students are strong foci for the Department of Education. Our system is dynamic and inclusive, and aims to provide a comprehensive and lifelong approach to learning for all Tasmanians. We seek to develop successful, skilled and innovative young Tasmanians, providing them with the opportunity to continue to learn and reach their potential, lead fulfilling and productive lives and to contribute positively to the community.

We accept that we must improve across all areas to achieve the aspiration outlined by Government.

The Agency's services and primary responsibilities include education and care, child and family centres, provision of early years services, primary, secondary and senior secondary schools, trade training centres, LINC Tasmania and Government Education and Training International. We have a set of strategies related to these responsibilities that we resource, and which will lead us to the transformation target.

Our Learners First Strategy is integral to all that we do in education for Tasmania. It drives our work and key projects and programmes through our values of learning, excellence, equity, respect, and relationships. Underpinning these values are the following:

- our belief that all learners have a right to participate in challenging and engaging learning opportunities;
- a commitment to excellence and equitable access to learning;
- conviction about the need for a culture of continuous improvement;
- commitment to maintaining a qualified, motivated and supported workforce; and
- the desire to work collaboratively with learners and their communities.

Reflections from session chairs, panellists, and stakeholders

As a Department, we support all of our schools and business units to promote and understand these values and our key drivers, in particular through our School Support and Expectations document and our shared priorities—Bright Beginnings, Great Schools ... Great Communities and Purposeful Pathways.

This strategic focus collectively supports a robust and sustainable education system in Tasmania, and our strategies, policies and initiatives all align to these key drivers which ultimately aim to transform educational outcomes for all Tasmanian learners.

As a Department, our key focus is Learners First—meaning they are at the forefront of everything we do. It is important that we seek to connect learners with education at any stage of their life, and we continually strive to provide the Tasmanian community with opportunities to access the skills and knowledge they need to be lifelong learners and to contribute positively to the Tasmanian community.

Across our schools, Tasmania's Literacy and Numeracy Framework (2012–2015) is providing a systemic, state-wide approach to literacy and numeracy improvement. Based on the Framework, every school has an explicit literacy and numeracy strategy as part of its School Improvement Plan, so that every student's literacy and numeracy learning needs can be supported. The Framework and Plan assist teachers to assess where students are at in their learning, according to the curriculum, and to develop appropriate and effective learning opportunities to meet their needs. The Framework will be reviewed in the current 2015–16 financial year to re-establish and confirm our goals for the future.

Further to this, the Supporting Literacy and Numeracy Success resource provides advice regarding quality teaching and effective practice at a whole-school and classroom level. Network Lead Teachers and Curriculum Teacher Leaders provide direct systemic support to schools to improve teacher effectiveness.

As part of this Government's election commitment, 25 literacy and numeracy specialist teachers were appointed in Term 3 of 2014 to support students presently below the national minimum standard and to complement the comprehensive support already available to schools. These specialist teachers are working both with students directly and subject teachers (co-teaching and co-planning models) on a number of strategies to most importantly re-engage these students with learning to help improve results. They also support school leaders to build a culture of literacy and numeracy learning across all subjects.

Retention, engagement and attainment are key priorities for the Department, and we want more students in the Tasmanian education system to go on and complete Year 12 with strong literacy and numeracy skills and a meaningful qualification, providing them with real choices for their future employment, education or training. The vast majority of jobs today and in the future will require higher-level formal qualifications and ongoing learning opportunities.

My Education is a coordinated, whole-school (K–12) approach that is supportive and inclusive, and that aims to inspire and guide students as they undertake a journey of discovery in identifying who they are and what they want to become.

Improving youth transitions and engaging learners so that they stay in education and training is the focus of a number of reform initiatives. Tasmania's implementation of the National Partnership Agreement on Youth Attainment and Transitions and the Trade Training Centres in Schools programme are examples of significant work aimed to support improved rates of attainment and completion.

In addition, 2015 saw the first round of rural and regional high schools selected to extend to Years 11 and 12 as part of the Government's key election commitment. Scottsdale High School, Smithton High School, Huonville High School and Dover District High School (in partnership) and St Mary's and St Helen's District High Schools (in partnership) began offering Year 11 and 12 programmes from the beginning of the school year.

The funding has provided \$10,000 to each base school and staff. Six more schools have been selected to commence in 2016 as part of Stage Two of this initiative—Tasman District School, Campbell Town High School, New Norfolk High School and Glenora District High School (in partnership) and Rosebery District High School and Mountain Heights School (in partnership).

Actively addressing student skills and knowledge needs for the future is central to the curriculum. A key focus area for the Department in 2015 was the ongoing implementation of the Australian Curriculum, including a carefully managed roll out of our new approach to career education, My Education.

My Education is a coordinated, whole-school (K–12) approach that is supportive and inclusive, and that aims to inspire and guide students as they undertake a journey of discovery in identifying who they are and what they want to become. It supports students to identify their personal interests, values, strengths, opportunities and aspirations and how to use this knowledge to make decisions about their future learning, work and life.

My Education also supports school leaders, teachers, parents and the community in their shared responsibility to ensure students successfully transition from one phase of schooling to another, and to transition from school to further education or work. It strengthens our approach to career development in schools, and is supported through an inquiry, curriculum-based approach as well as the Department's Learners First Strategy. Initially scoped in 2014, further consultation has been undertaken into 2015 on a range of resources, including professional learning, which aims to support teachers, students and parents as we roll out a staged implementation.

The focus for 2015 has been Year 10 students, with teachers supported to implement the Australian Curriculum: Work Studies for current information about engaging career development activities and the world of work. In 2016, efforts will result in the programme's implementation from Years 7–12, including the introduction of the associated online career planning tool for students and parents, and full implementation from Kindergarten to Year 12 will result from the 2017 school year.

Reflections from session chairs, panellists, and stakeholders

Our eStrategy is an integral aspect of Learners First, supporting our students into the future and responding to the need to have a systemic framework and structure in place for students to be able to develop essential 21st century skills. The eStrategy enables all students, especially those in rural and regional areas, to engage with digital technologies to support their learning and provides dynamic, engaging learning environments that support the eStrategy vision: personalised learning for any learner, anywhere, anytime. This year, we have produced a number of curriculum resources as part of the strategy in partnership with the Tasmanian Archives and Heritage Office (TAHO), as well as the development of professional learning resources for teachers around copyright and blended learning and eLearning. We have also been trialling the use of cloud services to enable students access to learning resources anywhere, anytime and there has been increased use of the Virtual Learning Environment by teachers and students, particularly in regional and rural schools.

We continue to develop and promote learning opportunities and activities for our students to build 21st century skills and capabilities through the curriculum, as well as through the delivery of key professional learning programmes for our teachers. As an example, this year New Town High School offered students an innovative new course teaching Game App Design, which, more importantly, connects with industry leader Appster who have made themselves available to mentor the students as part of the course.

This partnership between the school and this leading industry provider is the first of its kind in Australia, providing Tasmanian students with a valuable and innovative opportunity to learn from experts in the field how to create, develop, market and publish an original Game App. This new curriculum is providing students with hands-on, real life experience in the technology and business industries, reflecting the aims of the Department's eStrategy in providing real world experience to learners and potential career opportunities.

Promoting and assisting students as digital producers as well as digital consumers is a large part of learning in the 21st century, and this includes the creation and development of Apps. New Town High School is looking to expand the course into the future following an excellent response by students and ultimately teaching the course online to students from other schools; this is an outstanding example of the leading digital education that is being delivered across Tasmanian Government schools.

Achieving the aspirational goals set by the Government of Tasmania is something the Department has a commitment to. The symposium enabled many views to be expressed and gave the opportunity for all educators to reflect upon what we are currently doing, and what we need to do better at. Learners First is a dynamic document and sets out a responsive set of exciting strategies. Working collectively and collaboratively, the Department of Education is prepared for the challenges set by the need for transformation, and will be a learning organisation that will transform internally to create the educational outcomes that all citizens of Tasmania deserve and expect.

Preparing young people for the future



Peter Brett

Educational transformation is an elusive term to pin down beyond broad connections to change and reform. It is difficult to achieve and is likely to involve socio-cultural transformation and shifts of mindset. It is easier to espouse than to enact. There are multiple stakeholders. The Tasmanian Hothouse ideas explored at the symposium included significant community dimensions and responsibilities, and important messages for parents and businesses as well as educational agencies [see footnote 1].

Overall, the symposium offered signposts and pathways to a view that educational transformation in Tasmania is possible in the context of a coherent and shared vision, focused leadership, and energy and aspiration at the point of implementation. My favourite keynote contributions were respectively from the American social entrepreneur Henry De Sio—who called for a foregrounding of collaborative, empathetic, and change-making skills in educational settings (all the more persuasive coming from President Barack Obama’s 2008 [‘Yes we can’] campaign manager!) and Christine Cawsey, the Principal of Rooty Hill High School, NSW—who offered a compelling case study of the practical capacity of individual schools to create cultures of success.

There are multiple levers that education policy makers MIGHT pull in seeking to realise educational transformation. In no particular order these include:

- early years initiatives that raise the aspirations of younger students and their families;
- teacher education and professional learning;
- leadership initiatives;
- curriculum change;
- innovation in the space of work-related learning;
- the imaginative application of ICT;
- a forensic focus on achievement in literacy and numeracy;
- more rigorous systems of accountability for teachers;
- new ways of assessing student learning;
- the systematic embedding of a rich range of community partnerships; and
- re-structuring particular phases of education.

Which of these policy interventions should be prioritised in a Tasmanian context in ways which will engage students, sharply raise educational attainment, and prepare young people for the future? Hopefully the work of the Peter Underwood Centre will assist policy makers in making some important judgements in this space.

Making a difference to how we move forward



Jill Downing

My first observation of the Education Transforms symposium relates to the rather amazing collection of teachers, researchers, students and leaders who managed to quickly find space in their busy diaries to attend. This commitment speaks volumes about the passion held for improving educational outcomes in Tasmania, and the belief that a collective response is the approach most likely to make a real difference.

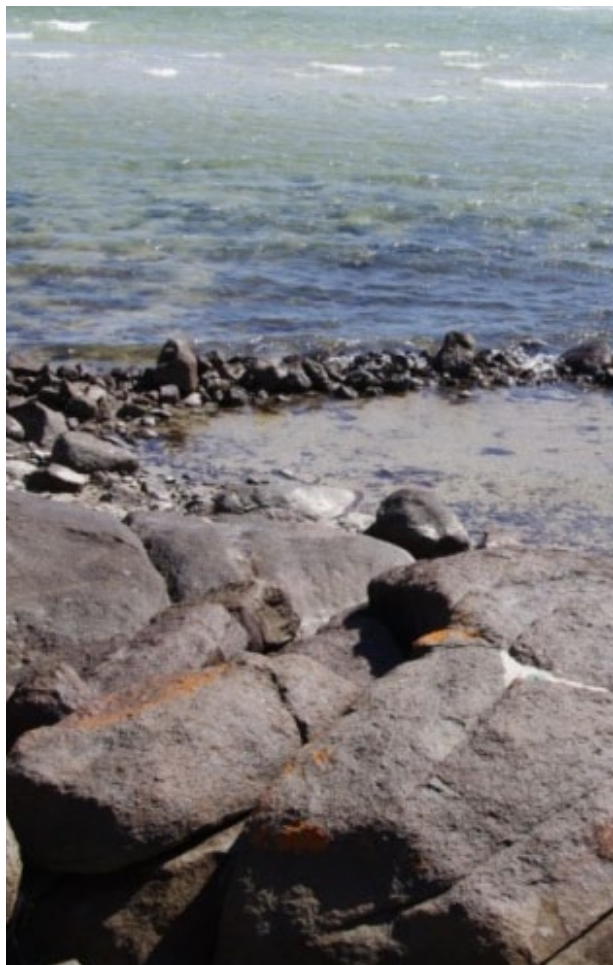
Secondly, there appeared to be a willingness to face the challenges head on—to talk openly about the unique and shared issues within and between sectors. I noted that the presentations which ensured conversations overflowed to the refreshment breaks, were those which brought out the hard facts about what we are experiencing in our schools, colleges and VET campuses: retention, educational outcomes, the ways in which success is measured, and such like. All are critically important matters that need to be considered in a collegial, constructive manner in order to plan new ways to move forward in Tasmania.

I am sure most attendees participate in many conferences each year, and for me the measure of the value of these meetings is in what happens after the event—does it make a difference to how I move forward?

In this case, the symposium did make a difference. As a result of my attendance, I have met with several college principals and planned how to improve the way in which our teacher-education students participate in their practicum placements—looking to find ways to make the connection between the University and the host-school more of a partnership that considers each student's development over a sustained period of time. This work should result in graduates who are more 'class-room ready'; confident to take their place in improving educational outcomes for students in Tasmania.

The symposium provided the opportunity to making new connections and arrange subsequent meetings, but it also provided the impetus to look for new and improved ways of approaching the shared vision and goals identified at the symposium. A very worthwhile event indeed, and a wonderful way to launch the Peter Underwood Centre for Educational Attainment.

Establishing a research and policy agenda is now critical



Janet Dyment

In the midst of a rather bewildering array of theoretical perspectives, research priorities and methodological approaches to enquiry within education, those with an interest in learning and teaching continue to search for the answers to 'big' questions about educational attainment, retention and engendering lifelong aspirations to learning.

So it was in Hobart that several hundred enthusiastic teachers, administrators, policy makers, public officers, academics, and students reaffirmed the value of engaging in conversation about the possibilities afforded by engaging perspectives legitimated by the integrity of different forms of inquiry, different philosophies and different strategies.

Acknowledging these differences was so critical to this symposium because education is complex due to the many, varied and contested 'inputs' to the 'system.' If we take a socio-ecological approach to understanding 'systems' in education, we need to look at the various roles played by students, parents, communities, teachers, schools, facilities, spaces, environments. We also need to look at their interrelationships. I believe the symposium did a fine job of recognizing these complexities—and importantly facilitated connections at the boundaries.

Looking to solve these complex and interrelated challenges, the symposium touched on many of the timeless debates in education: What is education for? How and why do learners learn? What do/should/might learners learn? Where should learning occur? How do we know if learning has occurred? Who teaches and why and how? What policy/practices and principles should 'govern' learning? The symposium also touched on some of the new debates that might help us find movement and ways forward—exploring the role and impact of technology, increased globalization, unification of standards and questions of governance.

Where to from here? Establishing a research and policy agenda is now critical.

I believe the symposium provided openings both for foundational clarifications of basic research purposes, methodologies and methods as well as for cross-boundary debates about issues of culture, gender, race, class and geographical location.

As educational researchers, we must work with others at the symposium (and beyond) to consider directions, challenges, and futures for educational research.

We must identify and explicate research needs and priorities.

We must continue to debate about how we govern, discipline and inspire what is counted as compelling and worthwhile research projects and programs and what will count and make a difference today and into the future.

Reflections from session chairs, panellists, and stakeholders

Have the courage
to step up and be
all that you can be



Megan Alessandrini

Tasmania has much to be proud of. Many University of Tasmania graduates in recent years are the first in their families to attain degrees, some even the first to complete Year 12. These people have had the confidence and been inspired to strive, have vision, imagine what might be possible for themselves and those around them.

Peter and Frances Underwood have between them inspired many Tasmanians, commanded respect through their intelligence and courage to speak out about uncomfortable topics. Demonstrating a similar commitment to truth, the symposium above all else was an opportunity to look honestly at our achievements in the Tasmanian education field and more importantly where we have failed.

The keynote speakers were varied and proved to be leading thinkers and gifted communicators. All were astonishing and absorbing, but I was struck most by the ideas of Henry De Sio, formerly COO of the Obama Election Campaign 2008 and current Global Chair of Framework Change at Ashoka so will focus on that.

I was familiar with Ashoka's work with social entrepreneurs and innovation around the world, so my expectations were high. Henry challenged my natural inclination to avoid the spotlight and diminish my capacities and achievements. My 'bigness' still eludes me, but the challenge to have the courage to step up and be all that you can be resonated powerfully. His conviction that empathy in learning is as powerful as literacy and numeracy struck an immediate chord. Frequently I have seen students with this capacity for empathy achieve better learning outcomes and subsequently go on to successful lives. We must embed this in our education at every opportunity. Personal success is based on collaboration, authenticity and social connection. Literacy and numeracy are a means, but empathy is essential.

Apparently Barack Obama said that '[t]he biggest deficit that we have in our society and in the world right now is an empathy deficit. We are in great need of people being able to stand in somebody else's shoes and see the world through their eyes'. I look forward to a Tasmania with an empathy credit!

Imagine how
we can guarantee
a lifelong desire
to learn for all
Tasmanians



Karen Swabey

What a wonderful opportunity I was given at the Education Transforms Symposium to engage in professional discussions around the themes of educational attainment and engendering lifelong aspirations to learn.

From the outset, the speakers presented information and made statements which required us to think deeply about our place and possible spheres of influence in and through these themes.

My day of reflection and deep thought began when Henry De Sio invited us to look at the skills and knowledge young people will require in the future.

De Sio's paper was followed by Professor Polesel's stimulating and thought-provoking address which presented us with data relating to school-based vocational education and high stakes testing. The questions I asked myself after these two presentations were: How does this affect the Faculty of Education? What do we need to change to ensure we are providing our graduates with the required skills and knowledge to be successful in the future?

Thereafter, I engaged in the Hothouse sessions which spoke broadly to educational concerns specific to Tasmania. Both afternoon keynote speakers, Professor Ian Menter and Andreas Schleicher, continued the process of challenging us to imagine how we can guarantee a lifelong desire to learn for all Tasmanians and, for me, these challenges were followed by a presentation by Department of Education leaders, who presented an in-depth discussion of the current status of our schools.

The second day saw equally challenging and confronting presentations made by Tom Bentley and Christine Cawsey. Both speakers discussed the reality of attempting to raise educational aspirations in a variety of settings.

The concurrent session I attended was presented by Deborah Brewer discussed a range of issues present in tackling participation beyond Year 10. The closing panel discussion drew all of the key points together and it was made clear that we must all work together if we wish to make a difference to enabling all Tasmanians to engage in education.

Engage early:
challenge, mastery
and achievement**Ted Lefroy**

Joan Abbott-Chapman's study of retention in Tasmanian schools was a wonderful example of persistence on two fronts. First is the persistence of her research team in carrying out a 20+ year longitudinal study. Second is the fact that their findings identified practical means to encourage persistence in students from disadvantaged backgrounds.

The findings emerged from three consecutive studies. Joan and her colleagues first embarked on a study of retention amongst 14,000 Tasmanian students. The four factors most strongly correlated with retention were students' school-assessed potential, socio-economic status, the type of school they attended in Year 10 and their gender.

The subject of their second study was the 16 per cent of students who were exceptions to these general rules, who despite the odds managed to persist at school. To determine what enabled these outliers to stick at it, Joan and colleagues used a simple questionnaire that rated students engagement on an additive scale from 0 (never enjoys school and always bored) to 6 (always enjoys school and never bored). To their surprise they found that this engagement score was a better predictor of educational attainment and occupational status 20 years later than either their teacher's assessment of their academic attainment or their self-assessed ability to learn. It proved a sound predictor of childhood health behaviours and risk taking, and self-rated health as an adult.

The next obvious question and the subject of their third study was 'what was it about the school experience of disadvantaged students that resulted in a high engagement score?' The three factors that stood out were physical activity and sport, cultural activities in music or the arts, and learning activities that in the researchers' words developed "positive learner self-concept through challenge, mastery and achievement".

The acronym SEEDS sums up their message:

- **S**tart early with engagement,
- **E**xtend the learning experience so every child learns to master something, use
- **E**xamples and role models through influential teachers or visitors, emphasise
- **D**oing as well as thinking, and provide
- **S**upport for teachers and recognition for those who inspire.

Deep change should not be a bridge too far



Michael Rowan

Attending a conference can be a bit like standing on a bridge and watching the water flow beneath you. At first you see the big thing, most of the river moving steadily downstream. But then you see eddies and counter currents, and patches of still water.

The main stream of the Education Transforms Symposium was invigorating. The keynote speakers described a world full of change and excitement, filled with new possibilities for self-organising groups brought together through social media. Groups which allow everyone to provide leadership, and 'step into their bigness'.

We gained insights from the OECD, especially that if we change expectations—if we have universally high expectations—and if we develop relationships that support schools, an education system can move very quickly.

And we need to move, everyone said. In a world in which the quality of a country's schools are part of its competitive advantage, standing still means going backwards.

So it was good to hear stories of great schools and committed teaching. Schools where kids want to learn, where they are told they are entitled to complete 12 years of schooling, and they exceed their own expectations—with a culture of success passed down from year to year.

All stories of change are driven by optimism about the future, increased expectations of our young people, the ambitious professional relationship building of our educators, an intolerance of inequity and 'that's the way it has always been', and a willingness to try new things, rigorously evaluate them, and improve, improve, improve.

Then I am in a counter-current. Local leaders proclaim that the education system here is back on an even keel; that our outcomes are fast improving, even though our senior secondary certificate is more difficult to attain than those of the other states; that the separation of senior secondary schooling from the high schools is not a problem; that we have a world-class system in the making. But the press won't give us them even break. There is little discussion.

I walk out wondering why we are all here—transformation job already done?—talking with a teacher who frankly admits her children go to a private school because she wants them to be in a school that goes to Year 12. She says she is far from alone in this choice.

Next morning I join a group of teachers having coffee together during the break. They speak of unruly kids, unsupportive parents, a distant but demanding bureaucracy, and low teacher morale. Nothing surprising in any of this. The view of the future from the bridge is uplifting; those responsible for the here and now are defensive; and there is friction (to change my metaphor) where the rubber hits the road.

Perhaps that is the 'conference problem'. One water politely slides past another, the one scarcely affecting the other. It is only when there is friction that one motion changes another.

There is a challenge for the Underwood Centre. To bring the bodies sliding past each other into contact, risk that the friction will generate more movement than heat, and ensure that the work of the Centre will lead to better things happening for students, and teachers, in classrooms all over Tasmania. Deep change should not be a bridge too far.

“But what are we going to do on Monday morning?”



Marion Myhill

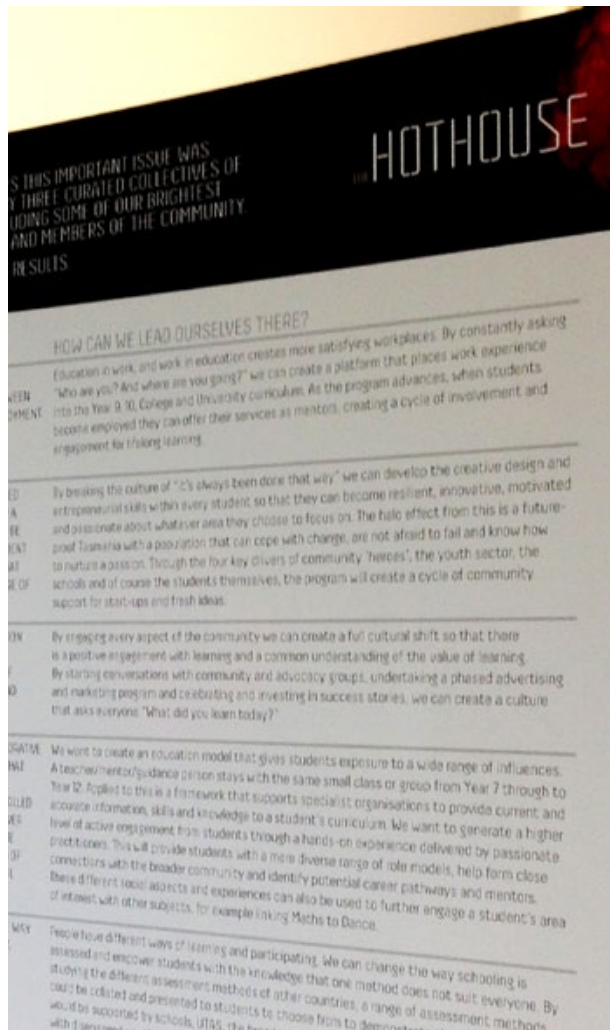
At the Education Transforms Symposium, Deborah Brewer’s presentation—entitled *Tasmania’s hidden dragons: equity in education participation beyond year 10*—provided a very positive contribution on the subject of the transformative nature of education in Tasmania. The session in which her paper was presented also explored the factors involved in education participation equity from problem identification to potential solution, from theoretical concept to pedagogical practice and from abstraction to reality within a case study of urban Tasmanian Year 10 students who had been identified as ‘ambivalent’ towards undertaking further education.

What was particularly interesting in Brewer’s presentation was the positive and empathic approach to students when addressing the issue of low retention from Year 10 into Years 11 and 12 in Tasmania. Brewer drew on the highly effective Chinese idiom of ‘crouching tiger, hidden dragon’, where the tiger and dragon refer to people with special hidden talents. By extension, this idiom was used to emphasise the view that all students have talents, that these talents should not be underestimated and, if they are hidden, then it becomes the important role of education and educators to reveal and develop them.

This research raises the important question of whether low student retention to the later years of secondary schooling might be more fruitfully addressed by focusing more on individual students and their needs and acknowledging the role of adolescent developmental factors. In this approach, students’ perceptions of the relevance of further education to themselves and their lives are identified as a particularly powerful influence on their decision to leave or stay at school.

If such a student-oriented approach were adopted, the implications for change in education provision in the upper secondary years are clear: that there should be a much greater focus on recognising and developing the skills and talents of individual students, and that student participation in post-Year 10 education is more likely to occur when the learning is personally meaningful to the student and individual student’s study preferences are prioritised.

In many ways this study captures particularly well the practical spirit of our late Governor, Peter Underwood, who was known to ask ‘But what are we going to do on Monday morning?’ Here is a call to action to solve the important issues identified in this symposium.

In the
Hothouse

Sue Kilpatrick

Three Hothouse sessions were held at the Education Transforms Symposium to build upon the Dark MOFO Hothouse held in June 2015, itself a facilitated creative discussion on the issue of educational attainment in Tasmania. The symposium's 'riff' on the Hothouse was held over three sessions and involved education experts, young Tasmanian leaders and members of the community. From these sessions, 12 ideas were formed—mirroring the 12 that came out of the parent event, which are reproduced below:

1. The Village is a project-based education program that matches mentors from industry, the arts and the wider community, to schools and students.

We will develop an application that mentors can sign up to, providing details of their expertise and availability. In parallel, similar interest and requirements will be gauged from schools, opening up a line of communication between them. The objective is to inspire students to learn, and create pathways to employment by breaking down the barriers between educational institutions and the community, paving the way for collaboration between stakeholders, and encouraging greater investment in education.

2. Have the community take responsibility for educational outcomes throughout life by starting a Community Revolution.

Students learn best when supported by their family and their community. The community then gains through their presence, with a halo effect on better health, better socio-economic outcomes and better community spirit. We propose establishing high schools (Years 7–12) with their feeder schools as the nucleus of a community. Through a combination of community forums/Hothouse scenarios and mapping existing and required resources and expertise, the community identifies its needs. A committed group would form a co-operative to investigate, initiate and take responsibility for long-term strategies for lifelong education/health and social welfare for their community. A roving "role model" program to inspire students would facilitate getting community into schools and schools out into the community. Importantly, all schools, areas and tiers of government will be evaluated and held accountable.

3. Have students shape their learning experience through project-based learning that will improve engagement and increase student retention.

An online app that surveys parents of school-aged children can determine the appropriate skills and areas of project-based learning for each area or community. With that data, needs and opportunities can be aligned with community stakeholders and local businesses. The creation of digital "badges" that collect evidence of learning, results and data, adds a further level of incentivization for the student and also provides a measure of their activity and success by collating a digital portfolio of the experiences gained through the relevant and empowering projects they undertake.

4. Empower the community to demand change to a needs-based distribution of education resources that creates equity and excellence by giving every student the opportunity to achieve their full potential.

We can achieve a system of less inequality that will benefit everyone through a series of initiatives, including a state-wide needs-audit that will result in the fairer distribution of resources, a strong social marketing strategy to create public awareness of the issues in order to create a loud and unified community voice, investing more in early years education through increasing access to Child and Family Centres, placing a Community Engagement Officer in every school and empowering each school to create a curriculum that is relevant to a student's needs. The result will be every Tasmanian child having the resources they need to fulfil their potential.

5. Make learning more appealing by engaging, activating and celebrating learning in the classroom and in the community.

The first step is to undertake a community research program with students, parents and teachers to ask "what do kids want to learn" and "what do teachers want to teach"? Using this information, pilot programs would be created to be run both in and out of school, supported by like-minded community or sporting organisations. Once activated, and with traction generated in these pilot communities, we can change perceptions to the wider community through a structured, targeted media and marketing campaign that promotes the benefits and rewards of learning.

6. Demand better educational outcomes on behalf of all Tasmanians through a media-led groundswell of action.

Our educational outcomes are dreadful and we make excuses for them. We will break the mindset of denial that exists in Tasmania about our standard of education through a combination of cultural and organisational change. We want to increase the community's hunger for better educational outcomes. We also want to change the way the system delivers education. These initiatives include; extending all government high schools from Year 10 to Year 12 in metropolitan areas, as well as in rural or regional towns and extending existing colleges back to Year 7; creating more aspirational pathway planning for higher education; provide frequent, external performance feedback and coaching for all teachers; and only employ the term "leavers' dinner" for those graduating from Year 12.

7. Create stronger, seamless links between education and employment.

Education in work, and work in education creates more satisfying workplaces. By constantly asking "Who are you? And where are you going?" we can create a platform that places work experience into the Year 9, 10 College and University curricula. As the program advances, when students become employed they can offer their services as mentors, creating a cycle of involvement and engagement for lifelong learning.

8. Create a regionalised program to develop a student's ability to be self-starting, resilient and confident so that they can take charge of their own future.

By breaking the culture of "it's always been done that way" we can develop the creative design and entrepreneurial skills within every student so that they can become resilient, innovative, motivated and passionate about whatever area they choose to focus on. The halo effect from this is a future-proofed Tasmania with a population that can cope with change, not be afraid to fail and know how to nurture a passion. Through the four key drivers of community "heroes", the youth sector, the schools and of course the students themselves, the program will create a cycle of community support for start-ups and fresh ideas.

9. Reframe the education message for all to develop a culture of learning for life, and life-long learning.

By engaging every aspect of the community we can create a full cultural shift so that there is a positive engagement with learning and a common understanding of the value of learning. By starting conversations with community and advocacy groups, undertaking a phased advertising and marketing program and celebrating and investing in success stories, we can create a culture that asks everyone "what did you learn today?"

10. Create a new, collaborative model of education that gives power to local organisations and skilled practitioners to deliver current and accurate content in their area of expertise to our schools.

We want to create an education model that gives students exposure to a wide range of influences. A teacher/mentor/guidance person stays with the same small class or group from Year 7 through to Year 12. Applied to this is a framework that supports specialist organisations to provide current and accurate information, skills and knowledge to a student's curriculum. We want to generate a higher level of active engagement from students through a hands-on experience delivered by passionate practitioners. This will provide students with a more diverse range of role models, help form close connections with the broader community and identify potential career pathways and mentors. These different social aspects and experiences can also be used to further engage a student's area of interest with other subjects, for example linking Maths to Dance.

11. Assess people in the way that best suits them.

People have different ways of learning and participating. We can change the way schooling is assessed and empower students with the knowledge that one method does not suit everyone. By studying the different assessment methods of other countries, a range of assessment methods could be collated and presented to students to choose from to demonstrate their learning, supported by schools, UTAS, the broader community—including organisations who work with disengaged youth, and the media.

12. Create a wider understanding and acceptance of the role of parents as a student's primary educator, and ensure they remain actively engaged throughout their child's learning.

Through a series of "essential ingredients", we will ensure that all parents understand and embrace the responsibility of being "first educators". This includes developing a mutually respectful relationship with schools, the creation of a media campaign, identifying community "champions" to help communicate key messages, state-wide access to prenatal programs based on discovery and play at home, close alignment with service providers, school-based programs to encourage partnerships with parents, and mobile discovery units to provide access, information and resources for all parents.



These ideas were then further discussed at the conference to develop ideas that the Peter Underwood Centre for Educational Attainment could take forward. These later Hothouse sessions generated several ideas, research priorities and concepts related to harnessing community willingness to assist in educational attainment; and providing education that is meaningful and engaging for all learners—two of the major underlying themes from the June sessions.

These ideas, generated on Day 1, were distilled into fifteen points that were explored on Day 2 of the symposium, as follows:

- aligning employer and young people's expectations about work;
- building capacity of service providers, engaging service-provider with schools in partnership;
- celebrating the positives;
- engaging parents and guardians in partnerships;
- facilitating lifelong learning;
- fostering cross-generational mentors;
- fostering industry involvement;
- guaranteeing quality teaching training;
- learning how to deal constructively with the entry into schools of issues that appear to be distractions or marginal to core business;
- learning how to develop shared expectations between each school and community, given the individual characteristics of each region;
- providing more connectivity between schools within the system, especially to help transition points;
- providing more school/community/industry engagement strategies and implementation plans;
- remembering the critical importance of executive function, meta-cognition, and life or soft skills;
- understanding cost and logistics; and
- using data and evidence well and in a cooperative and transparent fashion.

Reflections from session chairs, panellists, and stakeholders



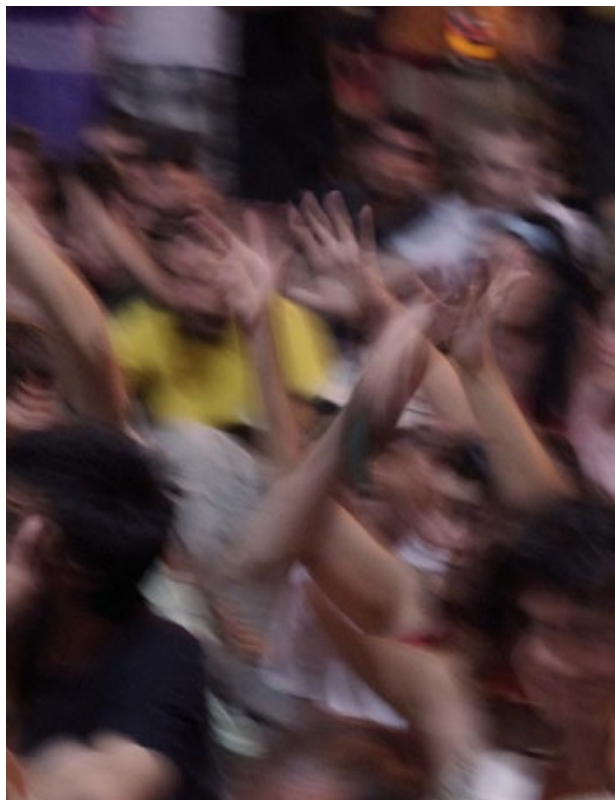
The original Hothouse gave experts, young people and interested community members the opportunity to express a true commitment to improving educational outcomes in the state. The Symposium Hothouse provided another opportunity to consider how the Underwood Centre could take forward certain concerns in its three program areas. Many great project ideas were suggested: those particularly resonating with me were:

- do research into, then implement, programs that will engage with *everyone* who requires skills development to support learning (business, communities, parents, individuals);
- facilitate workforce development that expands teachers' knowledge of careers and skills and education pathways, including teacher in industry and industry in school 'in residence' programs;
- develop tools and mechanisms for teachers to measure the effectiveness of their own classroom practice, encourage innovation and to share innovation across the education system; and
- investigate measures of educational attainment, followed by dialogue between researchers, educators and policy makers in order to agree upon which data are most appropriate to measure educational attainment in Tasmania at all levels from individual student to classroom and school and system.

Overall, I was inspired by the degree of community commitment to 'helping' our education system. Now is the time to take advantage of this energy. The challenge for the Underwood Centre is to do so constructively; to develop a long term community relationship with schools; and to achieve true community engagement with responsive action.

Reflections from
doctoral scholars

Education: A vital
tool for transforming
minds and societies



Olumide A. Odeyemi

Education is a vital tool if well-utilized. It can and has been changing the world at large. It is the torchlight to see in the obscurity of underdevelopment, social stagnation and economy backwardness. Conscientious efforts are therefore required to educate yearning hearts and minds to achieve the unimaginable. One of such efforts is Education Transforms Symposium which has come and gone. However, the transforming and beneficiary impacts continues and will continue to linger in the minds of participants.

My interest in the symposium was informed by the fact that education transcends all human endeavour. As a research higher degree candidate, I believe research is not unconnected with educational improvement, which was one of the key topics of the symposium. More so, research remains more or less an illusion if it does not translate into reality, which was another topic in the symposium. I also believe that the effectiveness of educational system affects research input and output. A poorly managed educational system will not be able to fulfil its primary responsibilities.

Lastly, the symposium served to connect my research, industry and academic development, which impact the world around me. Provision of bursaries to research higher degree candidates to attend the symposium epitomises the positive impact of financial aid towards educational transformation

Education is a life-long
international mission**Yue Ma (Melody)**

It was a great pleasure to attend the inspirational education symposium. In June this year, as a Higher Degree by Research candidate, I applied to join the symposium with a short proposal that education needs integration both regionally and internationally; cutting the tuition fee is a way to achieve education equity. I was very lucky to get the full bursary from the Graduate Research Office. Although my research is based in the Tasmanian School of Business and Economics, and the topic is to undertaking tourist behaviour and marketing with a cross-cultural context, it is worthwhile to listen to those keynote speakers and to see that so many people are dedicated to making significant efforts to improve education internationally.

I am from a north-eastern Asia Confucius cultural background, and most of our teaching is based upon sitting in a class-room with note-taking skills. However, a concurrent session relating to the STEM field aspirations: igniting and sustaining pre-tertiary student engagement, interest and motivation through context-based teaching and learning strategies was the session that impressed me the most over those two days. As a junior research student, it is also of encouragement to know that university research content could inform pre-tertiary teaching systems.

The symposium had four main themes: current trends in worldwide education; strategic development; school operations; and future directions. Overall, it was a valuable opportunity for me to learn the transformative spirit of education from all those talented and thoughtful guest speakers. Meanwhile, the symposium function dinner at MONA was such an inspiring time, for not only did we wander the museum; we also got to know other educators and shared ideas freely. So far, the symposium experience is the most exciting part of my research study in Tasmania.

Personalised learning plans: Transforming education for an uncertain future



Rosie Nash

My research focus and life experiences have direct relevance to all three themes that were discussed at the symposium:

- global trends in pre-tertiary education;
- what the best pre-tertiary education systems look like internationally; and
- strategies for success in raising educational aspirations, participation and attainment.

Coming to the symposium straight from the Higher Education Research and Development Society of Australasia (HERDSA) Conference, I was delighted to hear keynote speaker Henry De Sio sing the same song as fellow Americans George Siemens, Gardner Campbell and Helen Chen. De Sio outlined a framework for educational transformation highlighting skills essential for our future: empathy, team work, new leadership, and change agency (entrepreneurship). Speaking at HERDSA, George Siemens also included digital literacy and programming skills.

Overall, my take-home message was that parts of our current workforce may be replaced by robots in the next ten years and the jobs our children will serve in are not even realised yet. So how then do we best educate them for this uncertain future? A panel following De Sio's talk made some suggestions.

I joined the Advancement Via Individual Development (AVID) fan club in the next session, spellbound by its success and logic and excited by its synergies with my own research on personalised learning plans in Higher Education for Health Professionals.

I also joined Tom Bentley's fan club as he revealed his seven features of practice for the shared work of learning:

1. shared purpose: student learning;
2. combining longevity and energy of staff;
3. collaborative leadership;
4. community trust, professional trust;
5. drawing on external expertise;
6. ensuring permeable boundaries; and
7. fostering wellbeing and attainment.

On my way out the door on Thursday I wrote down my thoughts on the butcher's paper in the foyer. My synthesis of what had been said alongside my own thoughts were these points: students need personalised learning plans; purposeful, accessible and equitable education pathways are key; there is efficacy in early industry exposure, careers counselling and careers education; student-centred learning is important; so is life-long learning; education is everyone's responsibility—and leads to collective wisdom and sustainability; and reverse mentors can be powerful.

Education
Transforms**Christopher Orchard**

It is difficult to reach the aspirational goals of an inclusive and educated populace where inherent systemic problems occur, are identified, but are never owned by the wider community of educators. There was a general willingness to accept that there is a difficulty with educational attainment in Tasmania, and that this problem has many parallels with other regionally-based education providers working at tertiary and pre-tertiary levels. This acknowledgment occurred with regularity, but with equal frequency so did my sense that individuals are reluctant to be a part of the fix. The burden of leadership is not much embraced: instead I sensed concern about a lack of leadership and a lack of vision.

This reluctance seemed to manifest as arguments about responsibility for primary, secondary, TAFE, polytechnic, and tertiary education; about differences in pedagogy; in relation to concerns about an already full curriculum or about having no or only sub-standard management or leadership in the field; about a lack of significant resourcing; and in relation to a plethora of other issues that situate ownership of an issue outside of the individual's capacity to take possession, and make a difference. These tensions were simultaneously part of other conversations about the need for a pedagogy that responds critically to place in order to engage Tasmanians (and other regional or remote students). In this respect, much of the national curriculum seems designed for urban, coastal dwelling students.

It must be said that engaging communities requires resourcing in the form of funds, individual time and commitment. Some such resources are available in the expertise already present in our institutions, and more might be made of them across all levels of education, service for the benefit of those communities.

I left, as I entered, concerned that no real progress will be made. At all levels, unless ownership for the problem can be taken up without blame-shifting, and leadership can be better provided (by and through communities with educators), we will continue to talk, while our regional and remote communities suffer. It can be otherwise.

Engagement and the classroom



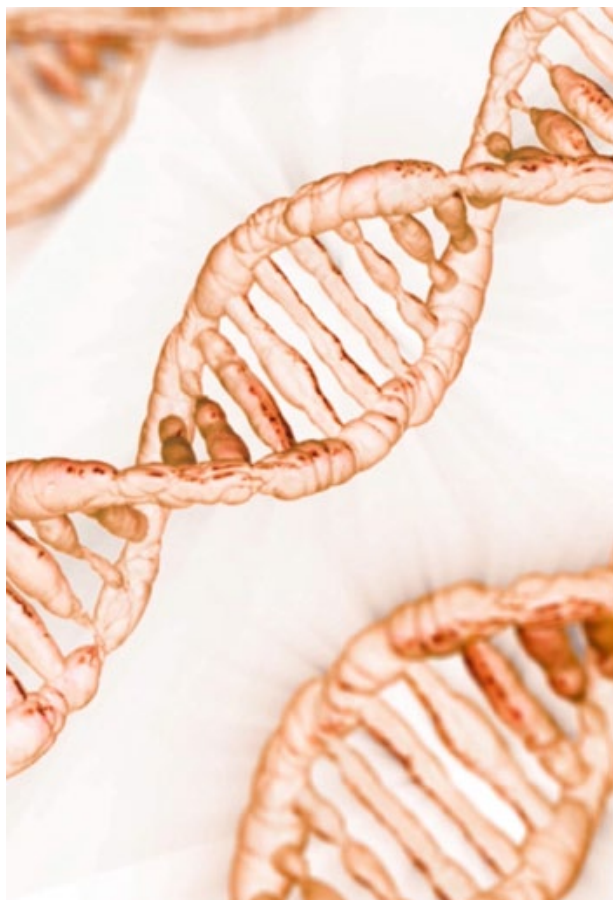
Annalise Rees

"Educational attainment and engendering lifelong aspirations"—what does this actually boil down to? Aside from policy, funding and the usual political frustrations what really is the essential nub of this problem? Christine Cawsey from Rooty Hill High School presented a convincing model based on practical solutions that students themselves are part of. Highlighting the point that engaging students in their learning is both the problem and the solution. Of course there are other 'bigger picture' social issues, which need to be equally addressed. These are however large scale, big budget, infrastructure problems, requiring considerable effort and resources to rectify and cannot be altered overnight.

Discussion points raised at the symposium were pertinent and relevant, but these are not new problems. These issues have been around for at least the last 30 to 40 years within the education and social sectors. My question is why haven't they been addressed, rather than being debated as though we have only just become aware of them? It was interesting to note that a large part of the discussion was around community involvement and engagement, and yet the lecture theatre doors at the casino were firmly shut, containing a group of very well educated and privileged individuals.

To perhaps funnel my frustration in a more constructive direction is to think about what can be done in terms of our approach to what constitutes learning and the environment in which it is delivered. Traditional classrooms are not the ideal environment to foster a sense of connectedness, social responsibility or even to garner curiosity about why one should give a toss about whether they learn something or not. To take students out of the four walls to connect with their world and society however is almost impossible. The narrow jobs-focused model is problematic—it compartmentalizes learning and learning areas as though they are discrete and disconnected, not to mention hierarchical, academic and non-academic, based purely on economic outcomes. Of course jobs and economics are important, but aren't they a natural by-product and indicator of a well-educated, innovative and progressive society? To empower our young people to take control of their own learning we need to utilize dynamic learning environments and create an atmosphere that they have some ownership over and will then naturally take responsibility for.

Engaging stakeholders for education transformation



Michelle Louise Mendoza-Enan

There is only one constant thing in this world and that is change. From an education perspective, demands are also continuously changing. In the past, education was viewed merely by learning to read, write and count. Today however, it is no longer adequate. Other features of education such as employability, sustainability and even convenience (that is, distance learning) have affected decisions to pursue education and even higher learning. There is therefore a call for education transformation to adapt to these changes.

Education has long been there as a tool for nurturing every child. We recognize the potential embedded in the DNA of every child. However, it takes the global village to assist the child to discover this potential. Every stakeholder of education has to engage in the learning process of the child effectively. This is only made possible through effective leadership and from the Education Transformation Symposium, I learned that effective leadership entails all stakeholders to become “a leader in every moment”. For instance, the family to which the child belongs takes care of the first formation of values such as empathy, which is the ability to relate to others. The teacher works together with the family to nurture these values, enhance them and supplement what the field to which the child will have to test his or her knowledge and skills, requires. The community then provides the environment for the child to discover his or her full potential. Moreover, all stakeholders should collaborate to provide a holistic and effective learning experience for every child.

To sum up, each stakeholder has to take the lead and collaborate with one another to effectively adapt to changes and transform education.

An education
on education**Indira Venkatraman**

My premise in attending the Education Transforms Symposium was simple. I needed to learn more about the various aspects of education for my research. My research interests fall into the following categories: Information Technology (IT) investments; accounting practises around IT funding and budgets; and the management and accounting for IT investments in educational institutions.

I have a good understanding of IT and accounting principles, but education as a domain of practice and theory was still not well-defined for me. When the opportunity to attend symposium was given, I was happy to grasp it through a generous bursary from UTAS.

The three days were eye-opening. Particularly interesting sessions were given by Henry De Sio, Jeff Garsed, and Kim Beswick and Rosemary Callingham. I enjoyed listening to the various views about education, and especially those about creating values of empathy, innovation and leadership through education.

Besides attending sessions, it was useful to catch up with key speakers and ask them questions in an informal setting during breaks. I was able to network successfully with other students from various UTAS campuses who also shared an interest in education as multi-disciplinary research. I enjoyed the three days and have a dossier of notes which I happily refer every time I am working on my research topics of IT investments in educational institutions. The enthusiasm from attending the event has also translated in my restarting a project on integration strategies and resource allocation for MOOCs. Inspiration that keeps inspiring is the best kind.

Listening respectfully to understand



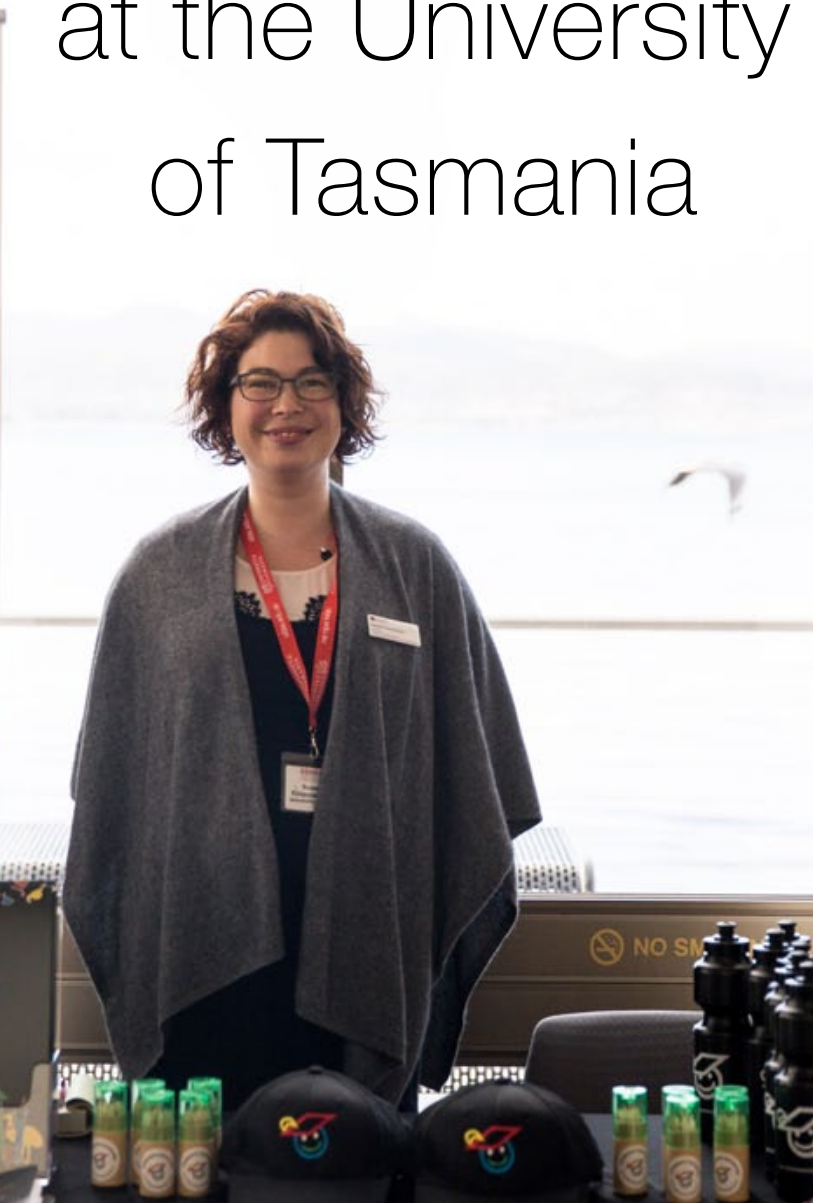
Lynden Leppard

My background is teacher and principal with a variety of professional learning and leadership roles at system level. There is enormous potential for pragmatic academic partnerships with school practitioners, students and communities. Action research around the themes that are set may mean that the voices and motivations of Tasmanian school communities could be heard and engaged. These folks could become participants. For example, in the Derwent and the Huon Valleys the folks do value learning. They sometimes think that schools teachers don't understand and value their learning or their culture. Transformation must come from within and the organisation is not Education Transmission!

The high school model does not suit all adolescents and their roles in families often involve home care and paid work for self and family. Many (?) of the young folk lead complex lives not acknowledged by dominant high school cultures and structures.

A multi-disciplinary approach to adolescent life, learning and schooling in the Tasmanian context is needed to get at retention—an issue that seems to be resistant to improvement. A possible approach is to be seen to listen to communities in respectful ways with the intention of transforming schooling and education, because they are not the same, through real partnerships across academics, communities, schools and other agencies.

16 The Children's University at the University of Tasmania



Susannah Coleman-Brown



Children's University Tasmania is an exciting program within the newly established Peter Underwood Centre for Educational Attainment. It forms a key component of the Centre's drive to lift the educational aspirations and subsequent academic attainment of Tasmanians.

This licensed and tested program model from the University of Cambridge Children's University Trust is proven to raise the aspirations, attendance and academic performance of its student members. It is structured to reward children aged seven to 14 years (and 15 to 18 years in the Passport to Volunteering program) with a formal, on-campus graduation ceremony for engaging with their in-school clubs and activities (Restricted Learning Destinations) and community-provided learning experiences such as visits to museums, various workshops and sports clubs (Public Learning Destinations). All validated activities under the model are held outside of class time and/or outside of school hours.

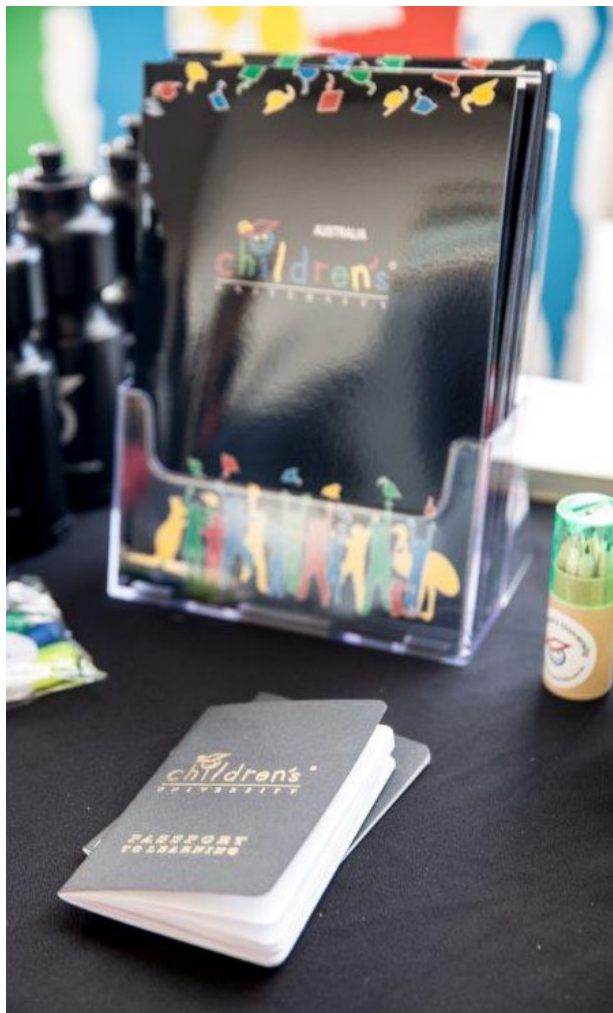
With Passports to Learning in hand, children travel to learning destinations that are of interest to them, collecting stamps for each hour of activity. Once students accrue between 30 and 1000 hours, student members and their families are invited to attend annual Children's University Tasmania graduation ceremonies and be presented with their award (bronze, silver, gold, undergraduate, postgraduate or fellowship). The event is held on our university campuses and recipients are dressed in formal graduation garb (cap and gown). This powerful and positive association with university symbolism, terminology and campuses provides a highly memorable experience for both the student and their families. Many may never have visited a university campus before or had a family member who has studied at university.

The key objectives of Children's University Tasmania are to:

- inspire children and families to engage with the world of learning beyond their backyard or classroom by providing a structured suite of professionally validated activities that are fun, accessible, hands-on and highly memorable;
- value and reward experiential learning and community service of our members;
- expand the career horizons of young Tasmanians through the wide-ranging learning experiences beyond the familiar;
- complement the array of activities many schools and organisations already offer to young people; and
- keep the children of Children's University Tasmania at the heart of our planning and evaluation.

A key expected outcome would be witnessing disengaged students discover an area of interest through a restricted or public learning destination which tickles their curiosity enough to pursue it further, and in the process gain a renewed enthusiasm and confidence to engage more in class.

In our establishment years (2015–2018), we plan engagement with 77 schools in low socio-economic areas, which will generate a wave of young leaders to inspire future Children's University Tasmania members and their local communities. Our overarching target (after 2018) is to see 220 Tasmanian schools across the socio-economic spectrum embrace Children's University Tasmania.



We expect to see families and guardians accompanying children to activities, learning alongside them, and attending Children's University Tasmania graduation ceremonies. The University of Tasmania will witness the pride of parents as their child receives their earned accolades on stage, a setting they may never have considered for themselves or their children.

We expect to see examples of student engagement such as the tech-savvy yet possibly introverted being introduced to welcoming environments in the form of a public learning destination activity such as the QVMAG Saturday Battery Shed run by Launceston's Innovation Circle—a drop-in style workshop for working on projects that creatively utilise technology, under the supportive mentorship and instruction of local robotics, software design and other innovative technology professionals.

We expect to watch confidence and curiosity grow amongst our student members, and receive anecdotes of improved behaviour at home as well as improved achievement at school.

We will see children find a deeper connection with their teachers, peers and local communities through their experiences of validated learning destination activities (book review clubs, Lego engineering clubs, yoga club, knitting circles, school garden club, photography club, philosophy club, astronomy club).

Lastly, we have the expectation that our student members will develop a sense of pride and ownership of Children's University in their communities and therefore be the best spokespeople for the initiative.

So far we have encountered 100 per cent support from all public learning destination providers approached by our team in 2015 and exceeded our recruitment target of 30 public learning destinations since our official launch July 1st. We are extremely fortunate to have the program endorsed by the Tasmanian Department of Education and to have interest from the Catholic, Independent and home schooling sectors. Twelve government schools are signed, with many more waiting in the wings for 2016. We shall continue to work closely with the Department of Education's senior management as the program expands across the state encompassing more government schools. There are exceptional volunteer CU School Coordinators working with our team who have fully embraced the program, regularly contribute ideas and have been excellent in-school promoters in this first phase of implementation.

We have already seen positive responses from parents following Public Learning Destination activities we have hosted on campus and the first wave of student members are carrying their Passports to Learning excitedly in their community, having attempted activities of interest that they may never have expected to access.

To succeed long term we require sustained commitment from school leaders, student members and their communities. We are in the process of careful and consistent relationship management and consultation to keep things moving forward in a considered manner.

Quality delivery, robust evaluation, and communication of successes will also be crucial to ensure we remain financially viable and establish a reputation of being an education program that truly transforms young Tasmanians.

17

Bigger Things



Stuart Thorn

“Aspiration is informed by
what students value, constrained
by what students know, and
adjusted to match what students
see as possible”

(Gale et al., 2010).



Context

Tasmanian students and education providers have traditionally seen the end of Year 10 as the completion of their education. Tasmania still has less than 47 per cent of students completing Year 12 against a national average of 74 per cent in 2013. The outcomes for students in areas classified as provincial and remote are even less encouraging (Report on Government Services, 2015).

Tasmania's population is geographically dispersed with nearly 60 per cent of the population living outside of the major cities/ towns (ABS, 2009). Coupled with changes in traditional industries such as forestry, mining, farming and an increasing use of technology in industries such as fish farming this fact means there is a need to shift the educational aspiration of students and that of their caregivers.

Project history

Bigger Things evolved out of the Educational Attainment Pilot project based in the Huon Valley. Bigger Things is a partnership between the Tasmanian Government and the University of Tasmania to improve educational attainment—over time, and across the State. The project is part of the Tasmanian Government's Partnership Agreement with the University and will run over a five-year period (2014–2018).

In its pilot phase Bigger Things is centred on Huonville High School, working with its feeder primary schools and Hobart College. The project's primary aim is to ensure that all students in the Huon Valley have the aspiration, support and skills required to successfully transition from compulsory to tertiary education.

A review undertaken by the Tasmanian State Government (Department of Premier and Cabinet, 2013) states that the “sustained building of student aspiration, the use of peer mentoring and the frequent exposure and demystification of university life, are some of the key actions that can assist low SES student transition to tertiary education”. The review further states that “the significant decision stage regarding Year 12 attendance and tertiary education participation is around the age of 14; it is critical that the timing of an intervention is viewed as equally as important as the intervention itself”.

Bigger Things Working Group

At time of writing, membership of the working group comprises staff from Department of Education, University of Tasmania, the Department of Premier and Cabinet, and the principals of Huonville High School and Hobart College. The working group oversees four key strategies: (a) building student aspiration, (b) supporting teachers, parents, caregivers and the community, (c) building student capacity and skills, and (d) strengthening vocational education and training as a pathway. A senior member of the working group leads each strategy.

1. *Building student aspiration (Sub-Group 1)*

Activity under this strategy includes on-campus visits for senior students to both the Sandy Bay and the Newnham campuses. During these visits, students have had the opportunity to participate in a wide range of topics including Sociology, Psychology, Nursing, Architecture, Human Movement, Mobile Technologies, and Visual Arts. The visits have given students the opportunity to explore campuses, interact with University students, and experience a university lecture.

During 2015, the Bigger Things team ran a Bigger Science Program across all feeder schools and high schools in the Huon Valley. The program included in-classroom delivery by science outreach staff, and the opportunity for students to present their work at the Huon Valley Science expo and bring their work onto the Sandy Bay Campus for the Science Investigation Awards.

The Expo attracted more than 750 members of the Huon Valley community to a night of Science. The event included science displays, science activities and presentations by Young Tassie Scientists group. We also had 423 participants in our World Record Stargazing attempt.

The Bigger Science Program was successful on a number of levels, with parents and their children working on Science displays, and the schools, their staff, students and parents interacting at both academic and social levels. Regional students were given the opportunity to participate in the Science Investigations Awards where their efforts were judged alongside the work of their peers. It was the first time Huon Valley based students participated in the SIA and they did very well winning a number of awards.

2. Supporting teachers, parents, caregivers and the community (Sub-Group 2)

Parents, caregivers and members of the broader community always play an important role in supporting successful learning outcomes for students.

In the Huon pilot, activity in this area has included having a University presence at events such as Huonville High Schools Year 11 and Beyond event. Parents were actively encouraged to participate in the Huon Valley Science Expo. Bigger Things also provided a bus to the University Open Day.

Bigger Things personnel also worked closely with senior Huonville High Staff organising lectures on topics such as Sociology, Psychology Agriculture Science and so on. These lectures coincided with senior student curricular.

It is planned that the Peter Underwood Centre for Educational Attainment will coordinate a series of professional development opportunities for high school and college staff.

3. Building student capacity and skills (Sub-Group 3)

The primary activity under this strategy has been to work with Hobart College and further develop its successful Buddy Program. The Program identified University of Tasmania students who have a connection with Huon Valley and invited them to become mentors for Huon Valley students attending Hobart College. The role of mentor includes topic-specific activity as well as study skills and discussion about university.

4. Strengthening VET as a pathway (Sub-Group 4)

Bill Duhig, Programs Officer, Department of Education has been delivering career information session to senior high school students, with an emphasis on aligning careers and pathways through the Australian Qualifications Framework or AQF, and the vocational and/or academic pathways to the students' choices. Bill and his colleagues are also planning professional development sessions for Huonville High School staff.

This sub-group is developing marketing materials better explaining the articulation arrangements between diploma level courses and bachelor degrees, including links to TasTAFE and the University of Tasmania web-sites and with specific examples.

Overall, Bigger Things is a longitudinal action project and it will take some time for benefits to emerge. By working closely with parents, students, schools, community and tertiary institutions and providing relevant information and experiences, more students will embrace lifelong learning and the benefits it presents.

18

Metaphors to think about
a future that wants to come



Metaphors to think about a future that wants to come

Elaine Stratford



Symposium closing remarks

Language speaks us into existence. What we say, how we move in the language of the body and its masterful non-verbal dances with the world, our silences—all these create the realities that we then experience, lay down, and come to see as 'truth'.

The cover for this collection of papers, reflections, and provocations 'speaks' into existence an illumined landscape, and it is intended to remind us all that education and, more broadly, life-long learning, enable us to shine as individuals and to serve our communities well.

That metaphor of *illumination* is but one that I want to name up as foundational to the purposes of the Peter Underwood Centre for Educational Attainment, now charged with advancing educational attainment and aspirations for learning among Tasmanians.

The second metaphor relates to three kinds of '-scope'—the *microscope* that enables us to envisage each young person's life anew; the *telescope* that invites us courageously to look beyond a generation or two and commit to educational attainment goals over many generations; and the *kaleidoscope* that provides us with a unity of purpose, an appreciation of the colour and movement of diversity, and a hopeful capacity to celebrate each and all.

The third metaphor is of the *map and compass*, dear to my own heart as a cultural and political geographer. Maps 'speak' to us about lie of the land and, with a sound compass, enable us to find our way.

Our cognitive, emotional, and real maps of Tasmania tell us that this special place has particular characteristics that need to be understood and engaged with as we raise educational attainment and increase the desire for lifelong learning among Tasmanians. Our understandings of these maps, and our commitment to orient ourselves to this collective goal of educational attainment are also enhanced when we bring empathy to bear, and have faith in this island, its people, and our future.

The last metaphor relates to the idea that life can be a *generous space of time*. Starting now, how are we to continue with the things that are constant, enduring, and effective, and—at the same time—innovate without undue churn or unseemly haste? How are we to better enable people to flourish over the life-course, creating generous and courageous spaces in which to have conversations that matter and generate actions that count?

This year the Peter Underwood Centre for Educational Attainment was created because the parties are committed to illuminating the lives of Tasmanians by supporting their aspirations for education. They are cognisant of their needs for targeted, diverse, and widespread forms of individual and collective support. They are conscious of the particularities of this island place. And they are determined to raise aspirations to learn over the life-course.

I am privileged to be charged with the 'neonatal' care of this new venture. It has been said that it takes a village to raise a child: so please join our community at <http://www.utas.edu.au/underwood-centre/invitation-to-engage>, help us, encourage and support us, and enable us to grow.

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